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# The Relation of Oxidant Levels to Presursor Emissions and Meteorological Features. Volume III Appendices (Analytical Methods and Supplementary Data)

SRI International, Menlo Park, Calif.

Prepared for

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# RELATION OF OXIDANT LEVELS TO PRECURSOR EMISSIONS AND METEOROLOGICAL FEATURES -

## VOLUME III: APPENDICES

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# THE RELATION OF OXIDANT LEVELS TO PRECURSOR EMISSIONS AND METEOROLOGICAL FEATURES

## Volume III: Appendices (Analytical Methods and Supplementary Data)

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# Appendix A

## DATA SELECTION AND METHODOLOGY FOR TRAJECTORY ANALYSIS

### 1. Overall Approach

As noted in the Introduction to Volume I of this report, one of the basic approaches used in this research was to investigate the relationships between observed ozone concentrations at rural locations and the past history of the air. Such an approach has several steps:

- Select suitable sites.
- Select suitable cases.
- Construct trajectories for the selected cases.
- Specify the meteorological conditions prevailing along each trajectory
- Specify the pollutants introduced into the air along each trajectory

It is the purpose of this appendix to describe the methods used during each step of this approach.

The selection of cases for study has been discussed in Volume I of this report. To a large extent the selections were made so that the cases included a large number of examples with relatively high ozone concentrations, while still maintaining examples of mid-range and low concentrations. The frequency distributions of peak-hour ozone concentrations (see Figure A-1) served as a basis for the case selection. Half the cases were chosen from those with concentrations in the highest 20 percent. The remaining cases were chosen more-or-less equally from among those with peak-hour concentrations in the lowest 20 percent and those with midrange (between the 40th and 60th percentiles) values. The chosen days are enumerated in Tables A-1 through A-3.

### 2. Data Requirements and Sources

A large volume of specialized data was required to determine the air trajectories and evaluate the conditions occurring along those trajectories. The important types of data include:

- Emissions data
- Surface and upper-air wind observations
- Conventional surface meteorological observations; e.g., temperature, humidity, cloud cover
- Observed ozone concentrations

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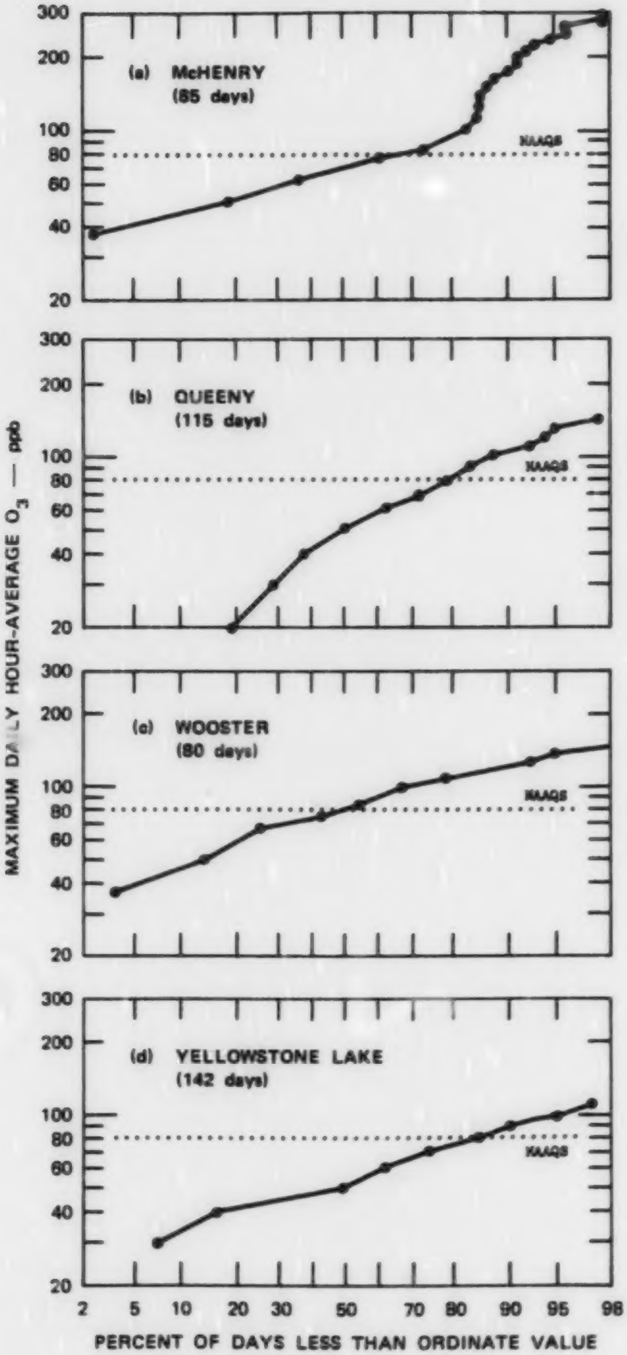


FIGURE A-1 FREQUENCY DISTRIBUTIONS OF DAILY MAXIMUM HOUR-AVERAGE OZONE CONCENTRATIONS

## Table A-1

### DATES SELECTED FOR DETAILED ANALYSIS FROM UPPER 20TH PERCENTILE

| McHenry (> 95 ppb) | | | Queeny (>83ppb) | | | Wooster (>109ppb) | | | Yellowstone Lake (>76ppb) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1974 Date | Hour(s) LST | Max. conc. (ppb) | 1974 Date | Hour(s) LST | Max. conc. (ppb) | 1974 Date | Hour(s) LST | Max. conc. (ppb) | 1974 Date | Hour(s) LST | Max. conc. (ppb) |
| 7/04 | 13 | 165 | 6/28 | 18 | 137 | 7/02 | 17 | 112 | 6/03 | 18 | 98 |
| 7/05 | 20,23 | 147 | 7/10 | 17 | 91 | 7/03 | 19 | 113 | 6/04 | 13 | 124 |
| 7/06 | 21 | 201 | 7/11 | 18 | 89 | 7/06 | 18 | 139 | 6/20 | 14 | 112 |
| 7/07 | 22 | 273 | 7/15 | 19 | 90 | 7/07 | 20 | 143 | 6/27 | 23,24 | 94 |
| 7/08 | 21 | 347 | 7/18 | 19 | 119 | 7/08 | 14 | 109 | 6/29 | 13 | 87 |
| 7/10 | 13 | 225 | 7/21 | 15 | 145 | 7/10 | 15 | 136 | 7/07 | 17 | 91 |
| 7/11 | 19 | 151 | 7/22 | 14 | 103 | 7/12 | 18 | 138 | 7/09 | 15 | 78 |
| 7/12 | 22 | 177 | 7/24 | 12 | 107 | 7/13 | 15 | 119 | 7/12 | 19 | 114 |
| 7/13 | 19 | 242 | 7/25 | 16 | 119 | 7/14 | 12 | 122 | 7/17 | 13 | 107 |
| 7/14 | 16 | 275 | 7/26 | 15 | 97 | 7/18 | 14 | 137 | 7/18 | 17 | 79 |
| 7/16 | 22 | 174 | 7/27 | 16 | 138 | 7/26 | 19 | 163 | 7/20 | 19 | 81 |
| 7/18 | 15,16 | 96 | 7/31 | 14 | 84 | 8/15 | 17 | 113 | 7/21 | 17 | 98 |
| 8/23 | 16 | 101 | 8/05 | 17 | 94 | 8/21 | 17 | 117 | 7/22 | 14 | 77 |
| 8/24 | 23 | 98 | 8/19 | 14 | 192 | 8/27 | 12 | 110 | 7/24 | 19 | 114 |
| 8/27 | 14 | 100 | 9/07 | 18 | 104 | 8/30 | 16 | 120 | 10/28 | 15 | 94 |

## Table A-2

## DATES SELECTED FOR DETAILED ANALYSIS FROM LOWER 20TH PERCENTILE

| McHenry (≤ 53ppb) | | | Queeny (≤ 26ppb) | | | Wooster (≤ 57ppb) | | | Yellowstone Lake (≤ 36ppb) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1974 Date | Hour(s) LST | Max. conc. (ppb) | 1974 Date | Hour(s) LST | Max. conc. (ppb) | 1974 Date | Hour(s) LST | Max. conc. (ppb) | 1974 Date | Hour(s) LST | Max. conc. (ppb) |
| 6/12 | 23 | 43 | 6/11 | 10 | 16 | 6/16 | 14 | 55 | 5/31 | 19 | 25 |
| 6/25 | 13,16 | 44 | 8/13 | 02 | 7 | 6/19 | 14 | 57 | 6/23 | 19 | 32 |
| 8/03 | 01,15 | 44 | 8/24 | 02 | 7 | 6/22 | 13 | 46 | 8/01 | 13,14,15<br>16,18 | 34 |
| 8/04 | 19 | 53 | 9/11 | 16 | 21 | 6/25 | 12 | 45 | 9/20 | 15 | 36 |
| 8/10 | 03,15<br>16 | 52 | 9/12 | 17 | 24 | 6/26 | 19 | 45 | 9/25 | 12 | 32 |
| 8/12 | 21 | 33 | 9/20 | 19,20<br>23,24 | 9 | 7/01 | 14 | 56 | 10/13 | 16 | 22 |
| 8/30 | 16 | 49 | 9/22 | 05 | 16 | 8/29 | 01 | 28 | 10/14 | 15 | 26 |
| 9/05 | 02 | 37 | 9/23 | 12,13 | 14 | 9/01 | 19 | 30 | 10/19 | 13 | 26 |

Table A-3

DATES SELECTED FOR DETAILED ANALYSIS FROM THOSE WITHIN 10 PERCENTILE OF THE MEDIAN

| McHenry (67 to 79ppb) | | | Queeny (42 to 60ppb) | | | Wooster (75 to 92ppb) | | | Yellowstone Lake (48 to 60 ppb) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1974 Date | Hour(s) LST | Max. conc. (ppb) | 1974 Date | Hour(s) LST | Max. conc. (ppb) | 1974 Date | Hour(s) LST | Max. conc. (ppb) | 1974 Date | Hour(s) LST | Max. conc (ppb) |
| 6/13 | 23 | 67 | 6/18 | 14 | 59 | 6/14 | 17 | 81 | 6/07 | 14 | 50 |
| 6/18 | 17 | 67 | 6/30 | 07 | 60 | 6/29 | 17 | 92 | 6/11 | 18 | 60 |
| 6/22 | 12 | 72 | 7/04 | 16 | 60 | 7/21 | 18 | 89 | 7/15 | 19 | 48 |
| 7/17 | 20 | 74 | 7/29 | 14 | 46 | 7/25 | 18 | 91 | 7/19 | 13 | 60 |
| 7 22 | 15 | 68 | 8/16 | 15 | 45 | 7/29 | 12 | 85 | 8/14 | 18,19 | 52 |
| 8/16 | 14,16 | 78 | 9/14 | 17 | 42 | 7/31 | 15 | 78 | 9/26 | 18 | 52 |
| 8/18 | 15 | 69 | 9/18 | 17,19 | 49 | 8/24 | 18 | 85 | 10/26 | 16 | 48 |

Table A-4 shows where the data were acquired. The objective of the analysis was to relate the rural oxidant concentrations to the important chemical and meteorological events along the trajectories. Among the factors known or strongly suspected to be involved in the production of ozone in the atmosphere are the following:

- Emissions of oxides of nitrogen ($NO_x$)
- Emissions of hydrocarbons (HC)
- Insolation
- Temperature
- Humidity
- Precipitation
- Atmospheric stability

Not all these items are measured, so it was necessary to derive numerical indices to represent them from those parameters which are measured. The source of information used to derive the meteorological indices (insolation, stability, precipitation, humidity, and temperature) was the surface weather map. Figure A-2 shows a portion of a weather map like those used in this study. At each of the plotted sites the following information is available and was used as primary data for these studies:

- Temperature
- Dew point
- Cloud cover
- Current and recent precipitation; e.g., rain, snow
- Cloud types
- Wind

Maps are available to represent conditions every 3 hours. This temporal resolution is reasonably good, and is quite consistent with the trajectory calculations where the location of the air is determined at 3-hour intervals. With the available weather maps, it was possible to determine the above-listed parameters at the appropriate place on the trajectory, although it was sometimes necessary to interpolate between maps and between stations.

The other primary sources of useful data for the necessary indices were the maps of $NO_x$ and hydrocarbon emissions densities that were derived from the information stored in the National Emissions Data System (NEDS). These data were compiled and plotted by EPA for each U.S. county. Figure A-3 is a section from the map of hydrocarbon (HC) emission densities. Each symbol, plotted near the center of the county it represents, indicates

## Table A-4

## SUMMARY OF DATA USED

| Data | Intervals/Dates | Form/Source |
|---|---|---|
| Emissions inventory by county | ---- | Computer compatible: J. Mersch, P. Youngblood, EPA, Durham, North Carolina |
| Surface meteorological analyses | 3-hr intervals; July 73-December 74<br>Daily; 1973 and 1974 | Microfilm, North America: User Services Branch, National Climatic Center, Asheville, North Carolina<br>Daily Weather Map Series |
| Upper-air meteorological analyses--mandatory levels | 6-hr intervals (12-hr at higher levels); July 1973-December 1974 | Microfilm, North America: User Services Branch, National Climatic Center, Asheville, North Carolina |
| Upper-air winds for trajectory computations | 1974 | Computer tape: Dale Coventry, EPA, Research Triangle Park, North Carolina |
| Ozone observations, SAROAD stations east of the Rockies | Hourly, where available; July 1973-December 1974 | Computer printout and tape: P. Youngblood, EPA, Durham, North Carolina |

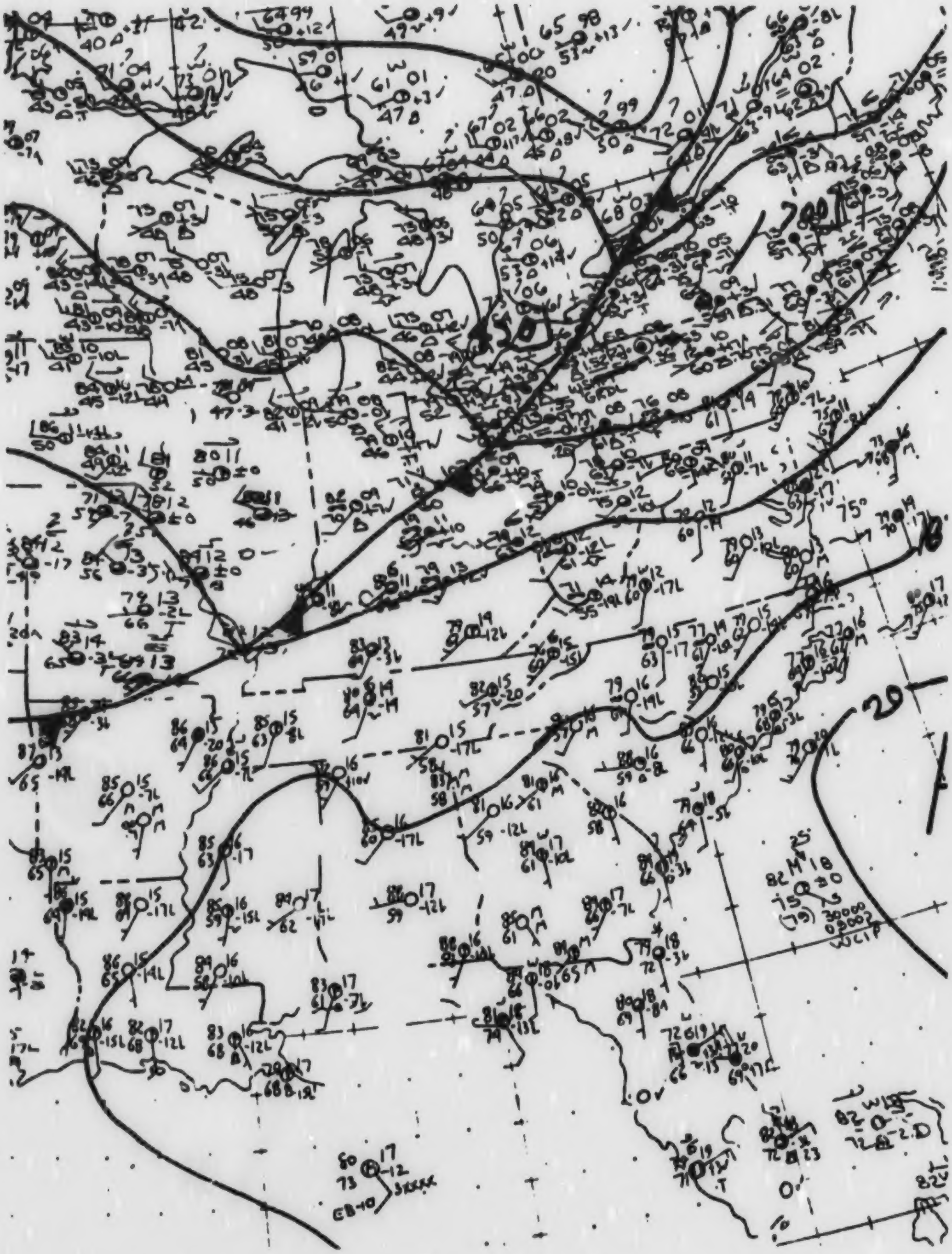


FIGURE A-2 AN EXAMPLE OF A WEATHER MAP LIKE THOSE USED FOR THESE STUDIES

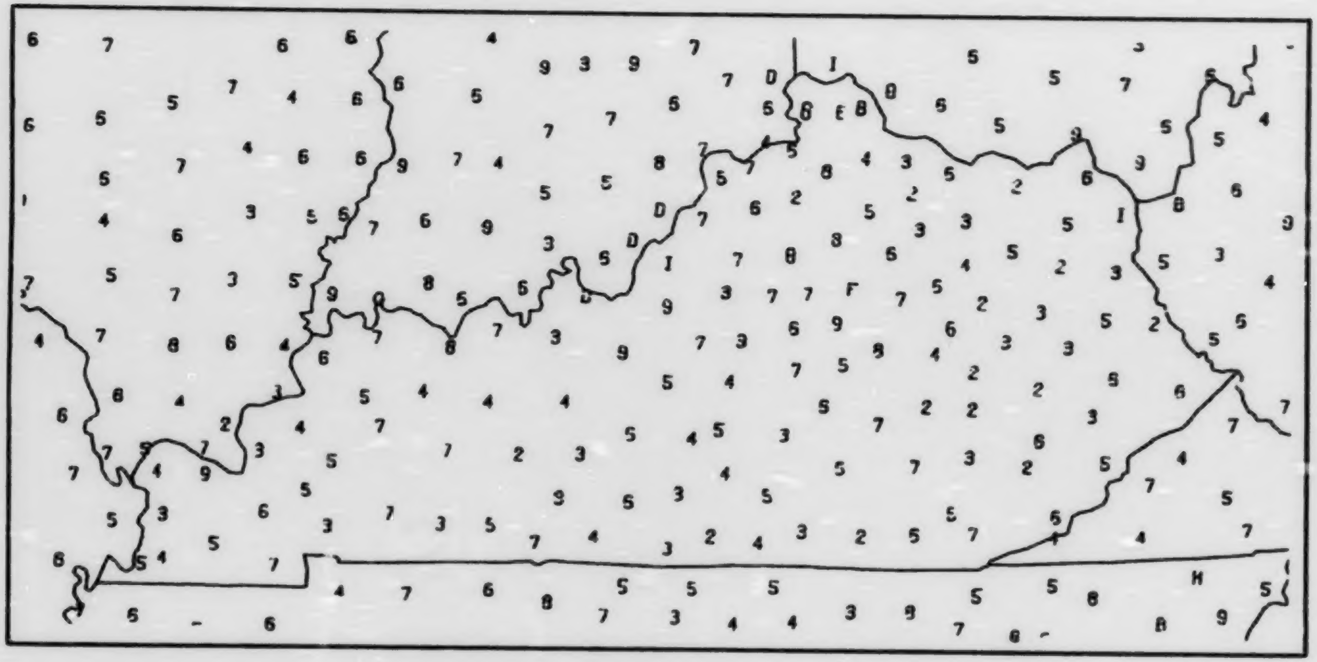


FIGURE A-3 A SECTION OF THE MAP OF EMISSION DENSITIES BY COUNTY

## Table A-5

## MEDIAN EMISSION DENSITY FOR VARIOUS MAP SYMBOLS

| Map Symbol | $NO_x$ Emission Density (ton $yr^{-1}$ $mi^{-2}$) | HC Emission Density (ton $yr^{-1}$ $mi^{-2}$) |
|---|---|---|
| 0 | 0.129 | 0.172 |
| 1 | 0.626 | 0.853 |
| 2 | 1.14 | 1.53 |
| 3 | 1.70 | 2.29 |
| 4 | 2.22 | 3.03 |
| 5 | 2.97 | 3.85 |
| 6 | 4.12 | 5.09 |
| 7 | 6.38 | 7.30 |
| 8 | 10.3 | 10.3 |
| 9 | 17.6 | 15.5 |
| A | 25.2 | 20.4 |
| B | 31.1 | 23.2 |
| C | 36.9 | 27.0 |
| D | 43.6 | 31.3 |
| E | 53.3 | 39.1 |
| F | 66.9 | 53.5 |
| G | 81.1 | 77.2 |
| H | 108 | 116 |
| I | 187 | 193 |
| J | 658 | 779 |

the annual countywide emission density. The emission densities were divided into 20 categories or classes. Table A-5 gives the median emission densities for both $NO_x$ and hydrocarbons for each category, and the associated map symbol for each of these categories. The class intervals represented by each symbol were chosen so that there are 320 counties in each of the classes from A through I. The remaining class, J, contains 28 counties.

## 3. Definition of the Air's Meteorological and Chemical History

### a. Trajectory Calculations

The first step toward determining the meteorological and chemical history of the air is to determine where it has been. The past trajectory of the air arriving at a monitoring site at some specific time must be calculated before its prior exposure to emissions and meteorological events can be ascertained. The trajectory calculation computer program used in these studies is a version of Heffter and Taylor's (1975) model provided by Mr. Dale Coventry of EPA, Research Triangle Park, North Carolina.

For these applications, the model used observed winds within a "transport layer" to calculate the trajectories. As an example, Figure A-4 illustrates the observed winds above a point on the ground. The general form for the average wind calculation is:

$$\overline{\vec{V}} = \frac{\Sigma \; \Delta H_i \vec{V}_i}{\Sigma \; \Delta H_i} ,$$

where $\overline{\vec{V}}$ is the vector average wind through the depth of the transport layer; $\vec{V}_i$ is the measured wind vector through the $i^{th}$ layer; and $\Delta H_i$ is the depth of that part of the $i^{th}$ layer that lies within the transport layer.

With reference to Figure A-5, the trajectory segments were calculated from the transport layer winds according to the following formula:

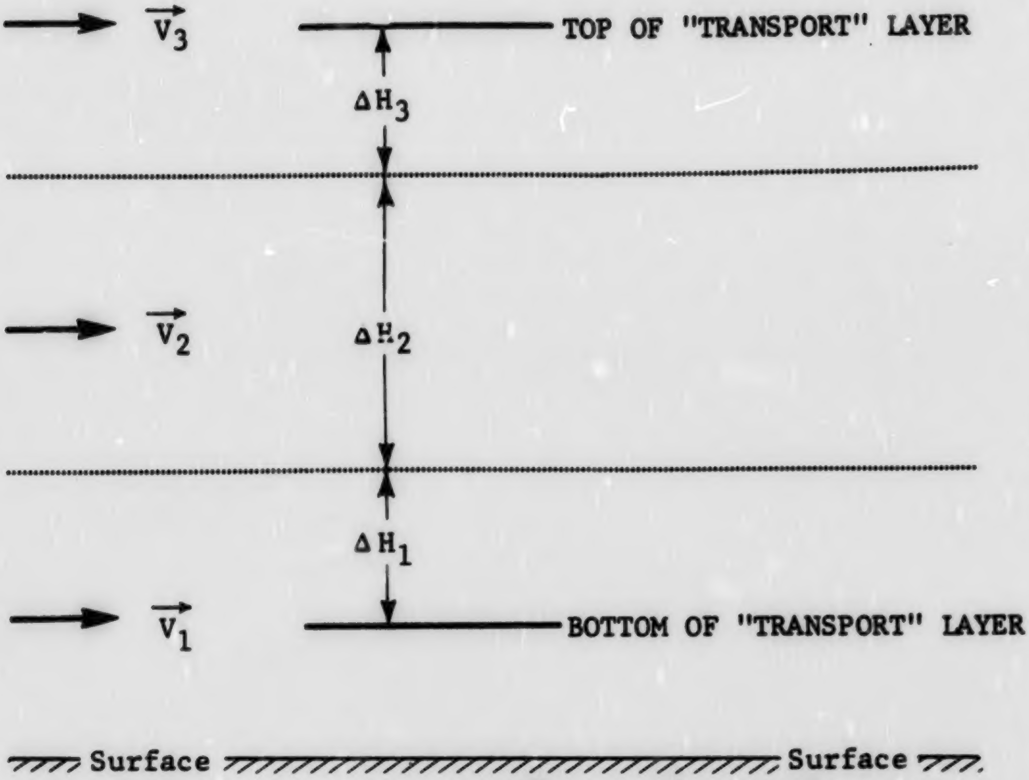
$$\vec{S} = \frac{\sum^{R} D_i A_i \vec{W}_i}{\sum^{R} D_i A_i} ,$$

where:

$\vec{S}$ = trajectory segment

$D_i$ = distance weighting factor

$= 1/r_i^2$


$\vec{V_3}$
TOP OF "TRANSPORT" LAYER
ΔH3
$\vec{V_2}$
ΔH2
ΔH1
$\vec{V_1}$
BOTTOM OF "TRANSPORT" LAYER
Surface
Surface

$$\text{Average Wind, } \overline{\vec{V}} = \frac{\Delta H_1 \vec{V_1} + \Delta H_2 \vec{V_2} + \Delta H_3 \vec{V_3}}{\Delta H_1 + \Delta H_2 + \Delta H_3}$$

Source: Heffter and Taylor, 1975

FIGURE A-4 SCHEMATIC DIAGRAM OF WIND AVERAGING SCHEME USED IN THE TRAJECTORY CALCULATION MODEL

$A_i$ = alignment weighting factor

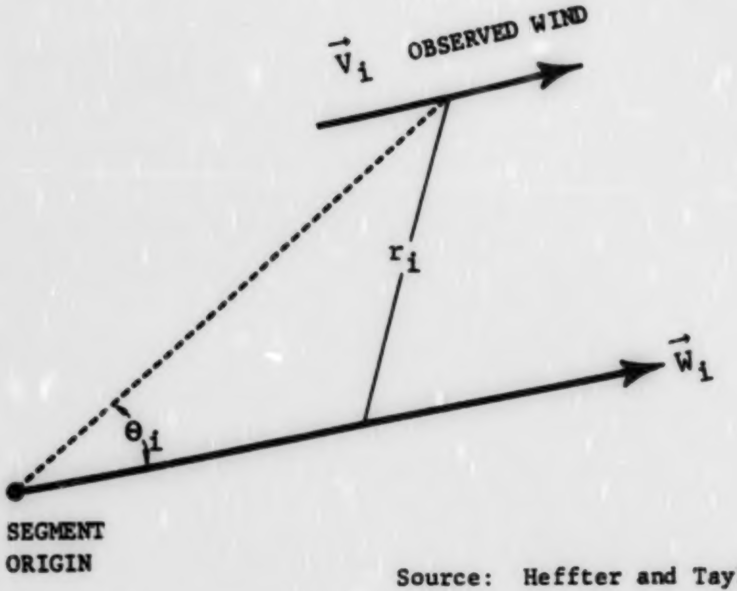
= $1-0.5 \sin \theta_i$

$\vec{W}_i$ = 3-hr distance displacement for $\vec{V}_i$

$r_i$ = distance between W and wind observation point (see Figure A-5)

$\theta_i$ = angle between $\vec{W}_i$ and line connecting the trajectory segment origin and the wind observation point (see Figure A-5)

$\overset{R}{\Sigma}$ = indicates a summation over all observation points within a distance R of the segment origin; following the example of Heffter and Taylor, R was set equal to 300 nautical miles.



Source: Heffter and Taylor, 1975

FIGURE A-5 PARAMETERS USED BY THE HEFFTER AND TAYLOR TRAJECTORY CALCULATION MODEL

The lower bound of the transport layer was taken as 300 m. An average afternoon mixing depth derived from the work of Holzworth (1972) was used to define the top of the transport layer. This is the approach suggested by Heffter and Taylor to eliminate surface frictional effects and to account for the fact that regional-scale transport of pollutants emitted into the boundary layer will occur through the maximum depth to which those pollutants are mixed. The applications of this project used summer afternoon mixing heights at each of the four sites. These were obtained from Holzworth's map by interpolation. The wind-aloft data which were provided by Mr. Coventry come from 202 locations.* About 30% of the stations reported more than twice per day. The data were restricted to the area between 20° and 55° N latitude and 65° to 135° W longtitude.

### b. Anthropogenic Pollutant Emissions

As noted earlier, the basic data used for estimating emissions were the maps of annual countywide emission densities (see Figure A-3). These maps provided estimates of annual emissions densities in the 20 categories given in Table A-5. These were corrected for seasonal and diurnal effects. Table A-6 lists the seasonal correction factors that were applied. It was assumed that the stationary source emissions do not vary from month to month, but that the emissions from transportation sources vary according to the annual distribution of traffic given by the Federal Highway Administration (1973). According to Cavender, Kircher, and Hoffman (1973), transportation sources account for 51.3% of the $NO_x$ emissions and 55.9% of the hydrocarbons. The stationary and transportation-related emissions were weighted accordingly in deriving Table A-6.

Table A-7 gives the weighting factors used to account for diurnal changes in the emission rates. The values were derived from diurnal cycles of traffic and stationary source emissions, primarily based on Los Angeles data (Reynolds et al., 1972; Roberts et al., 1971). In the applications reported here, 3-hour running means were calculated to correspond to the length of the trajectory segments. As was done to obtain seasonal correction factors, estimates of the relative contributions of transportation and stationary sources made by Cavender, Kircher, and Hoffman (1973) were used in deriving Table A-7.

### c. Temperature Index

The average temperature in degrees Farenheit was estimated from the weather map for each 3-hour trajectory segment. These temperatures were used directly as indices of temperature.

### d. Humidity Indices

Humidity indices were derived from the weather map data. Two types of humidity were considered, absolute and relative. Dew point temperature is a measure of absolute humidity and is plotted on the weather maps, so it was convenient to use the average dew point temperature

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*In World Meteorological Organization Blocks 72, 74, and 76 Covering United States, Canada and Mexico.

## Table A-6

## SEASONAL CORRECTION FACTORS FOR HC AND $NO_x$ EMISSION DENSITIES

| Month | HC | $NO_x$ |
|---|---|---|
| January | 0.0800 | 0.0802 |
| February | 0.0783 | 0.0787 |
| March | 0.0822 | 0.0823 |
| April | 0.0827 | 0.0828 |
| May | 0.0854 | 0.0853 |
| June | 0.0846 | 0.0845 |
| July | 0.0861 | 0.0859 |
| August | 0.0870 | 0.0867 |
| September | 0.0836 | 0.0836 |
| October | 0.0857 | 0.0855 |
| November | 0.0828 | 0.0829 |
| December | 0.0816 | 0.0817 |

## Table A-7

## DIURNAL CORRECTION FACTORS USED FOR HC AND $NO_x$ EMISSION DENSITIES

| Hour | HC | $NO_x$ |
|---|---|---|
| 1 | 0.01139 | 0.01182 |
| 2 | 0.01139 | 0.01182 |
| 3 | 0.01139 | 0.01182 |
| 4 | 0.01139 | 0.01182 |
| 5 | 0.01139 | 0.01182 |
| 6 | 0.03627 | 0.03877 |
| 7 | 0.05411 | 0.05514 |
| 8 | 0.06909 | 0.06889 |
| 9 | 0.06574 | 0.06581 |
| 10 | 0.05841 | 0.05909 |
| 11 | 0.05724 | 0.05802 |
| 12 | 0.06022 | 0.06076 |
| 13 | 0.06022 | 0.06076 |
| 14 | 0.06022 | 0.06076 |
| 15 | 0.06232 | 0.06268 |
| 16 | 0.06727 | 0.06722 |
| 17 | 0.07318 | 0.07264 |
| 18 | 0.05113 | 0.04829 |
| 19 | 0.03916 | 0.03731 |
| 20 | 0.03089 | 0.02972 |
| 21 | 0.02440 | 0.02376 |
| 22 | 0.02440 | 0.02376 |
| 23 | 0.02440 | 0.02376 |
| 24 | 0.02440 | 0.02376 |

(in degrees Farenheit) for each 3-hour trajectory segment as the index of absolute humidity.

Relative humidity was derived from the dew point and the ambient temperature through the use of Teten's expression for the saturation vapor pressure as a function of temperature (see Murray, 1967). The percent relative humidty (RH) is given by:

$$RH = 100\left(\frac{e_s(T_D)}{e_s(T)}\right)$$

where

$T_D$ = dew point temperature

$T$ = ambient temperature

$e_s(T)$ = saturation vapor pressure at temperature T

$$= 6107.8 \exp\left[\frac{17.269388\ (T - 273.16)}{T - 35.86}\right] \text{dyne cm}^{-2}$$

Use of the above expression for $e_s(T)$ (Teten's formula) required conversion of the Fahrenheit temperatures to Celsius.

### e. Insolation Index

This study used an insolation index based on one that was originally developed by Ludwig and Dabberdt (1976) to provide a measure of surface heating for determining Pasquill's (1961) atmospheric stability classes. This approach requires that solar elevation and cloud cover (as a fraction of the sky) be known. The following equation approximately describes the flux density of solar energy received per unit time on a horizontal surface:

$$\text{Insolation strength} = k(1 - AN) \sin \alpha ,$$

where

$k$ = a proportionality factor, depending on the solar constant and atmospheric transmission

$A$ = the average albedo or reflectance of the clouds

$N$ = the fraction of the sky obscured by cloud

$\alpha$ = the elevation angle of the sun.

The above expression is appropriate for averages over large areas where the effect of irregular distribution of clouds is minimized. Application of this expression in these studies meets this criterion. If one considers only low and middle clouds to be significant in limiting incoming solar radiation, it is reasonable to assign a reflectance of about 0.5 to the clouds, and the incoming solar radiation will be approximately proportional to an insolation parameter, I :

$$I = (1-0.5N) \sin \alpha$$

Ludwig and Dabberdt (1976) have discussed some observed relationships between I and insolation when observed "opaque" cloud cover is used for N. These applications use total sky cover for N if any low and/or middle clouds were reported; otherwise it is assumed that any high clouds present do not significantly attenuate the radiation. This approach is qualitatively similar to that used by Turner (1964) in his algorithm for estimating a solar heating index.

If it is assumed that the earth has a circular orbit, solar elevation angle, $\alpha$, can be calculated from the following expression:

$$\alpha \approx \arcsin \left\{ \sin \delta \sin \Phi + \cos \left[ \pi \left( \frac{H-12}{12} \right) \right] \cos \delta \cos \Phi \right\} ,$$

where

$$\delta = \arctan \left\{ -\tan 23.5^\circ \cos \left[ \frac{2\pi(D + 10)}{365} \right] \right\},$$

and

$\delta$ = the solar declination

$\Phi$ = latitude

D = number of days since 1 January

$H$ = local time = $H_z - \frac{L_w}{15}$

$L_w$ = west longitude (degrees)

$H_z$ = Greenwich Standard Time (midnight = 24)

### f. Precipitation Index

The precipitation index used here was derived from the conventions used by the National Weather Service to report rain, snow, and drizzle. The precipitation categories used by the Weather Service are summarized in Table A-8, along with the indices that were assigned each category for this study. The numbers assigned are based on definitions of precipitation rates, given by the U.S. Air Force (1957) to its observers.

### g. Atmospheric Stability Index

Atmospheric stability index was determined from the observed surface wind speeds and either the insolation index discussed above (for daytime cases) or the cloud cover (for nighttime cases). The method used for deriving stability from these other parameters has been described in detail by Ludwig and Dabberdt (1972, 1976).

## 4. Computer Compilation of Information

After the primary emissions and meteorological data were tabulated, they were processed using the computer program described in Appendix B.

Table A-8

VALUES OF PRECIPITATION INDEX ASSOCIATED WITH DIFFERENT TYPES AND INTENSITIES OF PRECIPITATION

| | Precipitation Type | | | |
|---|---|---|---|---|
| Intensity Category | Rain | Snow | Drizzle | Showers |
| Intermittent, slight | 2 | 2 | 1 | -- |
| Continuous, slight | 5 | 5 | 2 | -- |
| Intermittent, moderate | 7 | 7 | 3 | -- |
| Continuous, moderate | 12 | 12 | 4 | -- |
| Intermittent, heavy | 20 | 20 | 5 | -- |
| Continuous, heavy | 25 | 25 | 6 | -- |
| Slight | -- | -- | -- | 5 |
| Moderate | -- | -- | -- | 15 |
| Violent | -- | -- | -- | 25 |

## 5. Composite Indexes

It should be noted that the indices described above were all compiled at 3-hour intervals over the 60-hour period preceding the oxidant observation. Two types of emission index (hydrocarbons and oxides of nitrogen) and six types of meteorological index (temperature, relative and absolute humidity, insolation, precipitation, and stability) were calculated for each of the 20 3-hour periods. Each of these 160 indices was considered a potential predictor in regression equations for describing ozone concentrations. Inasmuch as there were 120 trajectories to be considered, the number of indices had to be reduced. There are optimal techniques for doing this using eigenvector analysis (see for example, Lorenz, 1956), but these sometimes tend to obscure the physical relationships involved. Rather, the reduction was effected by simply combining the 3-hour indices into 12-hour indices.

The possibilities for combining the indices are limitless, but not all the possibilities can be justified on physical or mathematical grounds. In a study such as this, the interpretability of the findings is exceedingly important. For this reason the study was limited to the use of simple time averages, weighted time averages, and a few other simple linear combinations of the indices.

## 6. Weighting of Indices

It seems reasonable to assume that the more recent conditions have a greater effect on the eventual ozone concentration than do the conditions that prevailed earlier. Therefore, the indices that are used should give the greatest weight to conditions during the 12 hours preceding the observation and the least weight to conditions that occurred along the trajectory 48 to 60 hours before. The following weighting scheme, while arbitrary, does provide for this consideration:

$$I_w = \left[\sum_{n=1}^{5} (6 - n) \cdot I_n\right] /15$$

where $I_w$ = weighted index

$I_n$ = average index for the nth most recent 12-hour period of the trajectory

This weighting scheme was used in some of the analysis involving the indices.

## 7. Statistical Analysis

For the studies discussed in Volume I of this report, only standard statistical approaches were used. These included:

- Linear and rank correlation and linear regression of observed oxidant concentration with the different meteorological and chemical indices
- Multiple linear correlations and regressions between oxidant concentration and combinations of indices
- Correlations between pairs of indices
- Factor analysis to derive composite meteorological indices.

The computer programs used in the statistical analyses are those contained in the "Statistical Package for the Social Sciences (SPSS)," as described by Nie et al. (1975). The routines from that package that were used most were SCATTERGRAM, NONPAR COR, and REGRESSION. The first provides a line printer display of a scatter diagram of two variables, the correlation coefficient, and the best-fit linear regression equation. The second calculates rank correlations. REGRESSION, which provides multiple linear regression equations, was used in a stepwise fashion in which different variables are added, one at a time, to the regression equation. The first-step equation relates oxidant concentration to the variable that explains most of the variance. The second step forms a regression using the first selected variable and a new variable that explains most of the remaining variance. Each step adds a new variable, selected because it explains more of the remaining variance than any of the other unused variables. This approach provides some estimate of the relative importance of the various indices.

The SPSS programs provided information on the significance of the correlation coefficients, the probable errors in the estimates of the regression equation constants, and the standard error of the values predicted by the regression equations.

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## Appendix B

## METEOROLOGICAL AND EMISSION INDEX COMPUTER PROGRAM

The computer program METINDX was developed to compute the meteorological and emission indices. A flow chart of METINDX appears as Figure B-1, and a listing of the program is given at the end of this appendix. The following description outlines the sequence of operations that the program performs in computing the indices.

For each trajectory, the first of 20 data sets containing 3-hour values of each input parameter is read. The first data set corresponds to the most recent 3-hour segment of the trajectory. The input parameters include station; date; local and Greenwich time; latitude and longitude; temperature; dew point; cloud cover; symbolic precipitation type, frequency, and intensity; HC and $NO_x$ emissions map symbols; wind speed; and ozone concentration. The 20 data sets comprising each trajectory must be sequential in time; the program prints a warning if the time of each data set is not 3 hours prior to the time of the previous set or if the dates are not sequential.

The temperature and dew point for the first data set are converted from Fahrenheit to Celsius, and their respective saturation vapor pressures are computed. The ratio of the saturation vapor pressures gives the relative humidity. Dew point is used as a measure of absolute humidity.

In computing the emission density indices, HC and $NO_x$ map symbols are matched with the annual emission densities that correspond to the symbols. As discussed in Appendix A, these annual values are adjusted by applying monthly and diurnal factors to represent the portion of the annual emissions of each pollutant that is emitted during the time and date of the trajectory segment. A 3-hour average is taken of the diurnal adjustment factors, centered about the time of the data set.

The table of precipitation indices corresponding to precipitation classes symbols given in Appendix A is used by the program METINDX to convert the type (e.g. showers, drizzle) of precipitation that is occurring, its intensity (light, moderate, or heavy), and its frequency of occurrence (continuous or intermittent) to the appropriate value of the index. For example, the program decodes the symbol IR- as rain, light, and intermittent. Indices of type, intensity, and frequency are determined. From these, the program derives the overall precipitation index; in this case the value is 2 (see Table A-8, Appendix A).

Pages B1 and B2 are blank.

The solar declination angle is computed from the day of the year. Using the solar declination angle, the hour of the day and the latitude of the station, the sine of the solar elevation angle is calculated. The insolation index is then computed.

Atmospheric stability is classified according to the table given by Ludwig and Dabberdt (1972, 1976). Program METINDIX first checks to see if the sky is overcast or if the solar elevation angle is less than or equal to 15 degrees. If so, the stability is neutral. Otherwise, a heating/cloud cover index is assigned according to whether there is strong, moderate, or slight insolation during the daytime, or whether or not less than half of the sky is covered by clouds during the nighttime. The wind is classified according to speed, and a wind speed index is assigned. Using the heating/cloud cover-index and the wind speed index, the stability class is located from the table.

The program computes the indices discussed above for each 3-hour time period, then reads the input data for the next time period. When all 20 data sets for a single trajectory have been read and the indices have been computed, the program prints the output for the trajectory and writes it on tape. Output includes the following parameters: all input parameters, relative humidity index, HC and $NO_x$ emission density indices, precipitation index, insolation index, and stability index. METINDX then reads the data set for the next trajectory, or terminates if no more data is to be input.

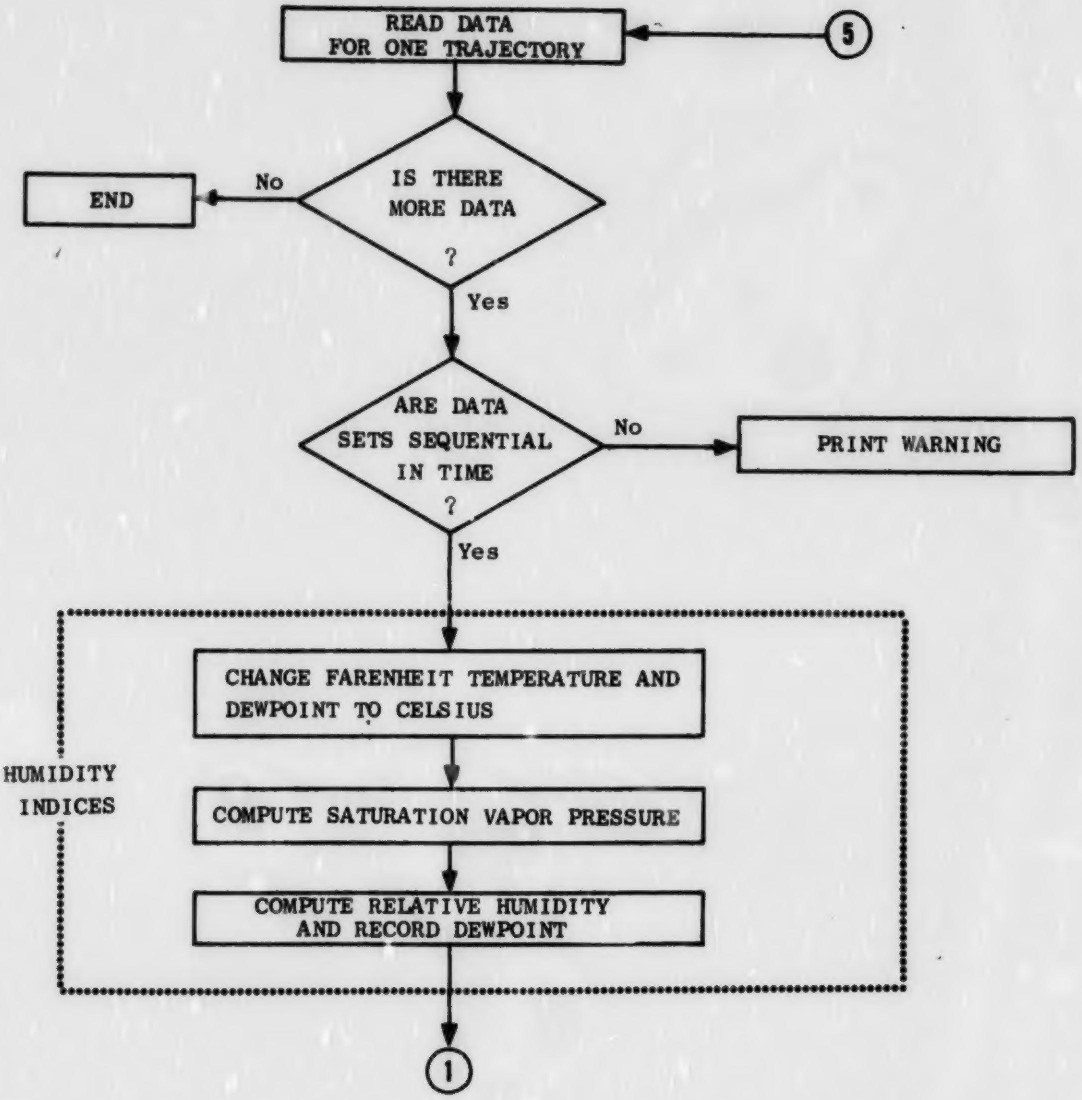

READ DATA FOR ONE TRAJECTORY
5
IS THERE MORE DATA ?
No
END
Yes
ARE DATA SETS SEQUENTIAL IN TIME ?
No
PRINT WARNING
Yes
HUMIDITY INDICES
CHANGE FARENHEIT TEMPERATURE AND DEWPOINT TO CELSIUS
COMPUTE SATURATION VAPOR PRESSURE
COMPUTE RELATIVE HUMIDITY AND RECORD DEWPOINT
1

FIGURE B-1 FLOW CHART FOR PROGRAM METINDX

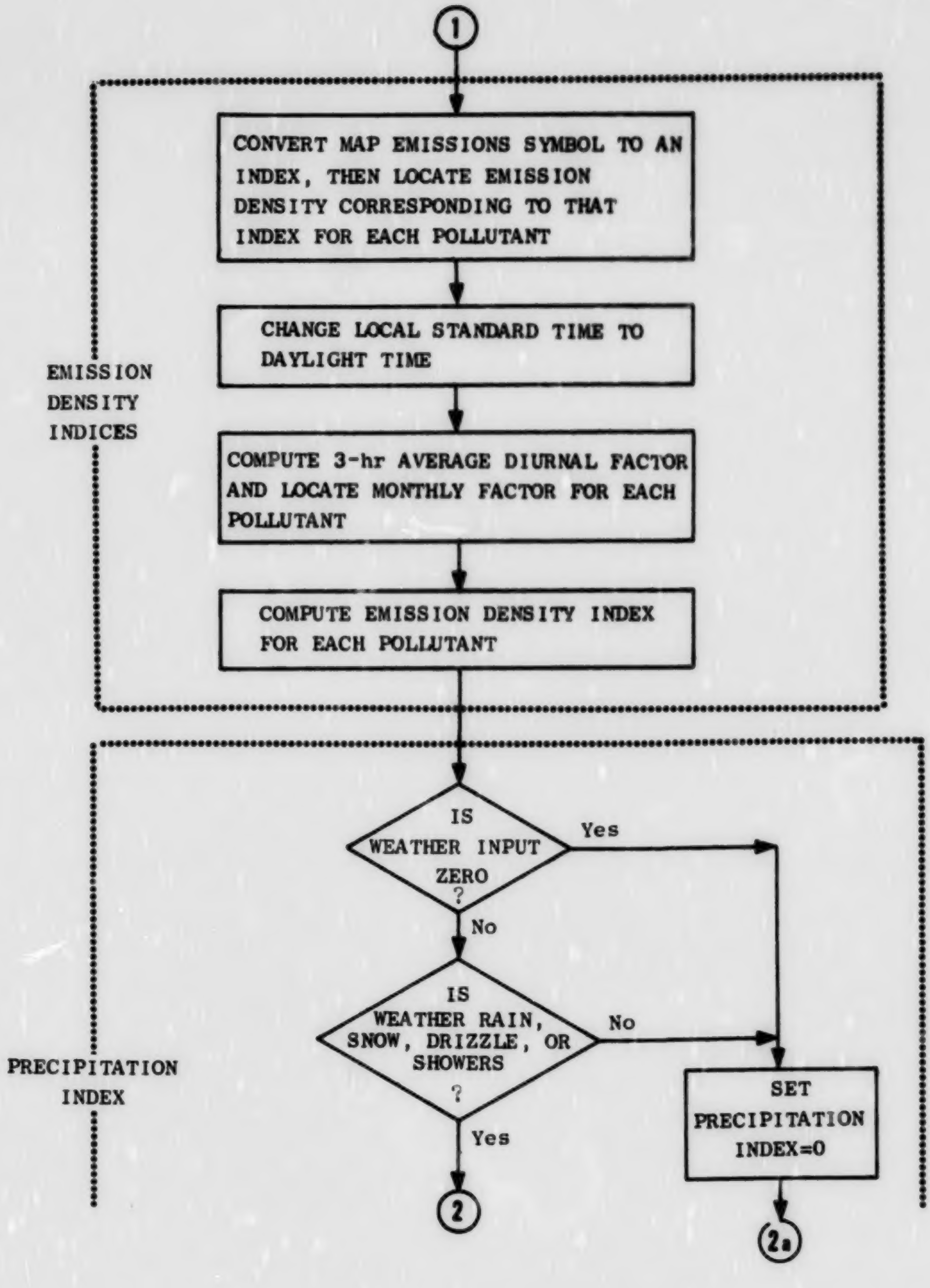

1
CONVERT MAP EMISSIONS SYMBOL TO AN INDEX, THEN LOCATE EMISSION DENSITY CORRESPONDING TO THAT INDEX FOR EACH POLLUTANT
CHANGE LOCAL STANDARD TIME TO DAYLIGHT TIME
EMISSION DENSITY INDICES
COMPUTE 3-hr AVERAGE DIURNAL FACTOR AND LOCATE MONTHLY FACTOR FOR EACH POLLUTANT
COMPUTE EMISSION DENSITY INDEX FOR EACH POLLUTANT
IS WEATHER INPUT ZERO ?
Yes
No
IS WEATHER RAIN, SNOW, DRIZZLE, OR SHOWERS ?
No
PRECIPITATION INDEX
SET PRECIPITATION INDEX=0
Yes
2
2a

FIGURE B-1 FLOW CHART FOR PROGRAM METINDX (Continued)

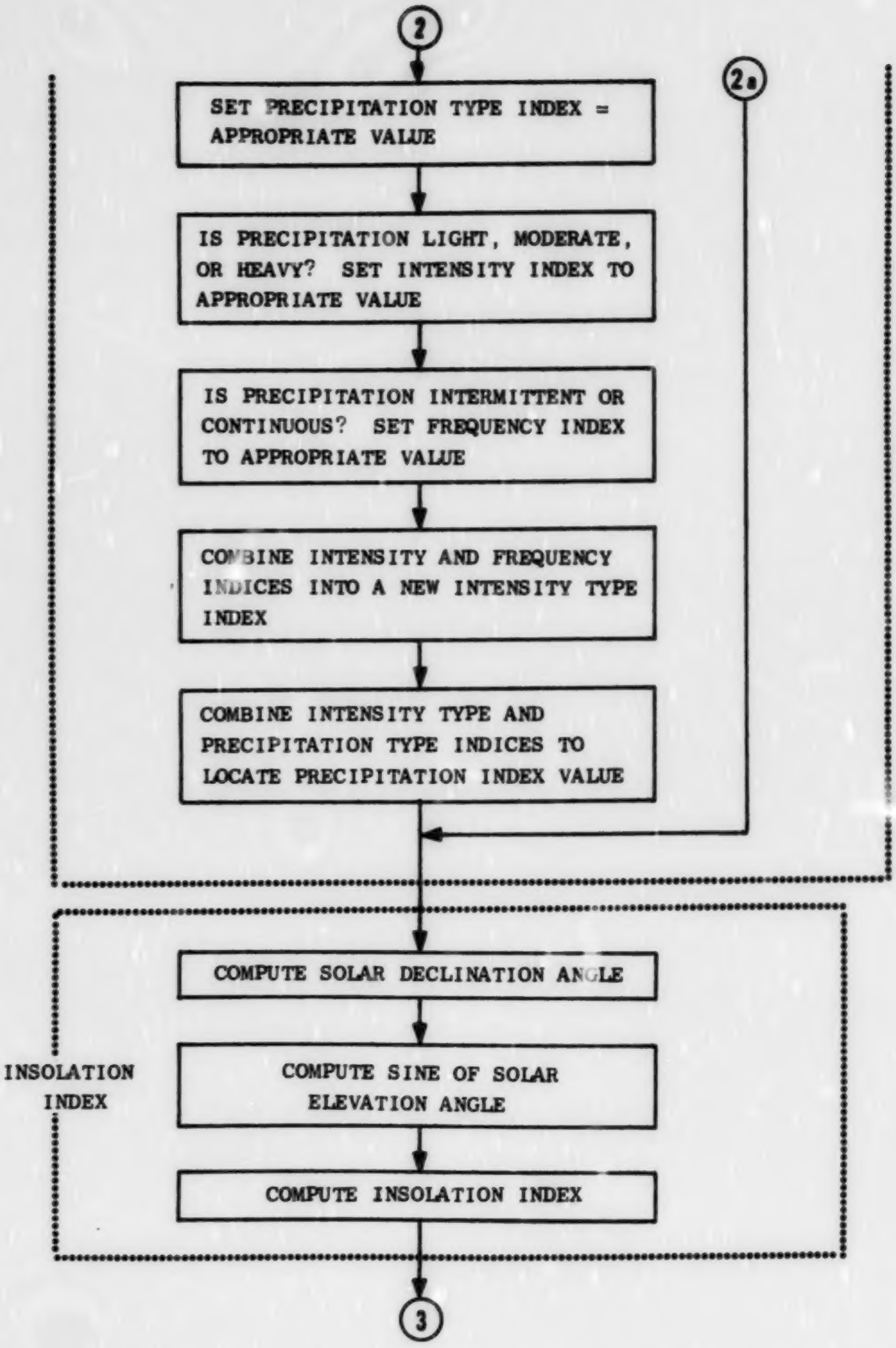

2
2a
SET PRECIPITATION TYPE INDEX = APPROPRIATE VALUE
IS PRECIPITATION LIGHT, MODERATE, OR HEAVY? SET INTENSITY INDEX TO APPROPRIATE VALUE
IS PRECIPITATION INTERMITTENT OR CONTINUOUS? SET FREQUENCY INDEX TO APPROPRIATE VALUE
COMBINE INTENSITY AND FREQUENCY INDICES INTO A NEW INTENSITY TYPE INDEX
COMBINE INTENSITY TYPE AND PRECIPITATION TYPE INDICES TO LOCATE PRECIPITATION INDEX VALUE
INSOLATION INDEX
COMPUTE SOLAR DECLINATION ANGLE
COMPUTE SINE OF SOLAR ELEVATION ANGLE
COMPUTE INSOLATION INDEX
3

FIGURE B-1 FLOW CHART FOR PROGRAM METINDX (Continued)

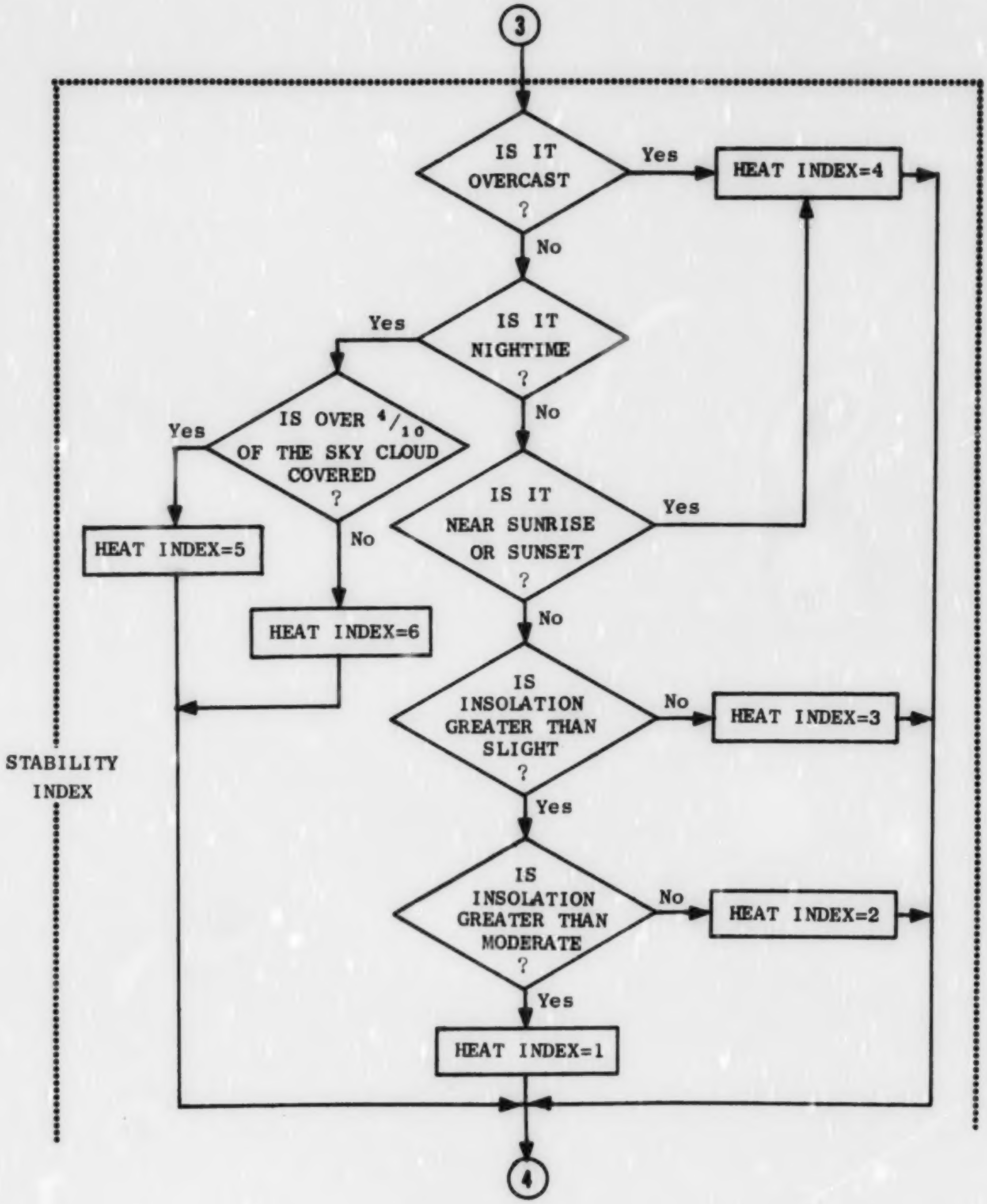
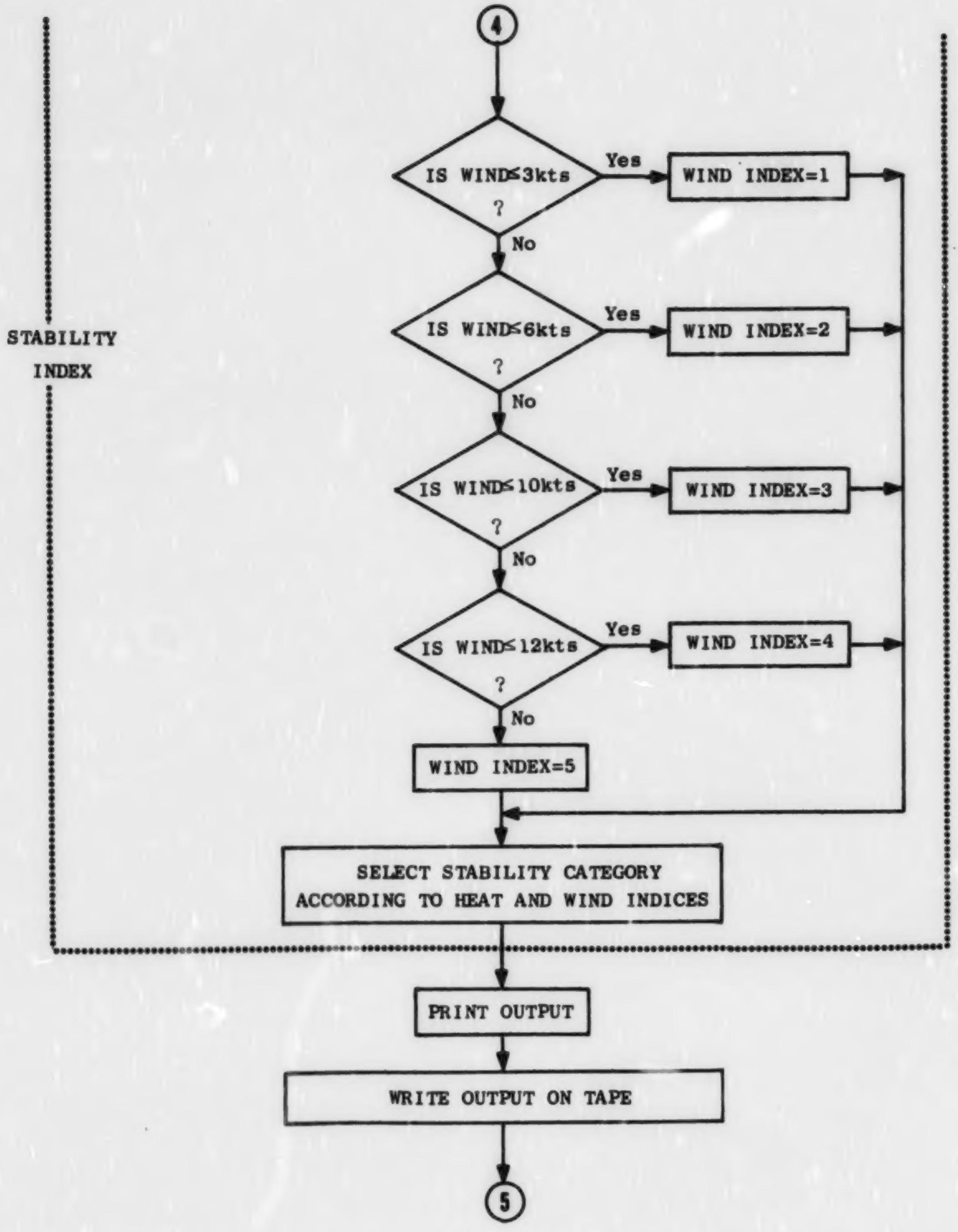

3
IS IT OVERCAST ?
Yes
HEAT INDEX=4
No
IS IT NIGHTIME ?
Yes
IS OVER $^4/_{10}$ OF THE SKY CLOUD COVERED ?
Yes
HEAT INDEX=5
No
HEAT INDEX=6
No
IS IT NEAR SUNRISE OR SUNSET ?
Yes
No
IS INSOLATION GREATER THAN SLIGHT ?
No
HEAT INDEX=3
Yes
IS INSOLATION GREATER THAN MODERATE ?
No
HEAT INDEX=2
Yes
HEAT INDEX=1
STABILITY INDEX
4

FIGURE B-1 FLOW CHART FOR PROGRAM METINDX (Continued)



4
IS WIND≤3kts ?
Yes
WIND INDEX=1
No
IS WIND≤6kts ?
Yes
WIND INDEX=2
No
IS WIND≤10kts ?
Yes
WIND INDEX=3
No
IS WIND≤12kts ?
Yes
WIND INDEX=4
No
WIND INDEX=5
STABILITY INDEX
SELECT STABILITY CATEGORY ACCORDING TO HEAT AND WIND INDICES
PRINT OUTPUT
WRITE OUTPUT ON TAPE
5

FIGURE B-1 FLOW CHART FOR PROGRAM METINDX (Concluded)

## LISTING OF PROGRAM METINDX

```
      PROGRAM METINDX(INPUT,OUTPUT,TAPE6)
      DIMENSIUN SMHC(12),DMHC(24),SMNOX(12),DMNOX(24),IWX(4),IDATE(3),
     1IPRECIP(9,4),ICAT(3,2),INDEX1(4),INDEX2(2),INDEX3(20),TABLEHC(20),
     2TABLNOX(20),STABLE(5,6),DATA(21,21)
      DATA IPRECIP/2,5,7,12,20,25,0,0,0,2,5,7,12,20,25,0,0,0,1,2,3,4,5,
     16,0,0,0,0,0,0,0,0,0,5,15,25/
      DATA ICAT/4,2,6,3,1,5/
      DATA INUEX1/1HR,1HS,1HL,1HW/
      DATA INUEX2/1H-,1H+/
      DATA INUEX3/1H0,1H1,1H2,1H3,1H4,1H5,1H6,1H7,1H8,1H9,1HA,1HB,1HC,
     11HD,1HE,1HF,1HG,1HH,1HI,1HJ/
      DATA SMHC/.0800,.0783,.0822,.0827,.0854,.0846,.0861,.0870,.0836,.0
     1857,.0828,.0816/
      DATA DMHC/.01139,.01139,.01139,.01139,.01139,.03627,.05411,.06909,
     1.06574,.05841,.05724,.06022,.06022,.06022,.06232,.06727,.07318,.05
     2113,.03916,.03089,.02440,.02440,.02440,.02440/
      DATA SMNOX/.0802,.0787,.0823,.0828,.0853,.0845,.0859,.0867,.0836,.
     10855,.0829,.0817/
      DATA DMNOX/.01182,.01182,.01182,.01182,.01182,.03877,.05514,.06889
     1,.06581,.05909,.05802,.06076,.06076,.06076,.06268,.06722,.07264,.0
     24829,.03731,.02972,.02376,.02376,.02376,.02376/
      DATA TABLEHC/.172,.853,1.53,2.29,3.03,3.85,5.09,7.3,10.3,15.5,20.4
     1,23.2,27.,31.3,39.1,53.5,77.2,116.,193.,779./
      DATA TABLNOX/.129,.626,1.14,1.70,2.22,2.97,4.12,6.38,10.3,17.6,
     125.2,31.1,36.9,43.6,53.3,66.9,81.1,108.,187.,658./
      DATA STABLE/1HA,1HA,1HB,1HC,1HC,1HB,1HB,1HC,1HC,1HD,1HB,1HC,1HC,
     11HD,1HD,1HD,1HD,1HD,1HD,1HD,1HE,1HD,1HD,1HD,1HD,1HE,1HE,1HD,1HD,
     21HD/
1     FORMAT(A3,1X,3I2,2I3,2F5.1,2I4,I3,,1X, *A1, 2(2X,A1), I3)
2     FORMAT(1X,*THERE ARE FEWER OR MORE THAN 20 DATA SETS IN THIS TRAJE
     1CTORY*)
3     FORMAT(1X,*THE FOLLOWING DATA SET HAS NO EMISSION DENSITY MAP SYMB
     1OL FOR UNE POLLUTANT*)
4     FORMAT(            //,5X,*DATE*,3X,*TIME*,3X,*TIME*,4X,*LAT*,3X,*LO
     1NG*,2X,*CLOUD*,5X,*WX*,5X,*HC*,4X,*NOX*,3X,*WIND*,3X,*TEMP*,2X,
     2*DEWPT*,5X,*HC*,4X,*NOX*,5X,*RH*,3X,*STAB*,2X,*INSOL*,1X,*PRECIP*,
     3/11X,*(LST)*,4X,*(Z)*,2X,*(DEG)*,2X,*(DEG)*,3X,*(.1)*,9X,*(MAP)*,
     42X,*(MAP)*,2X,*(KTS)*,2X,*(DEG)*,2X,*(DEG)*,2X,*INDEX*,2X,*INDEX*,
     59X,*INDEX*,2X,*INDEX*,2X,*INDEX*,/)
5     FORMAT(1X,F8.0,2(2X,F5.0),2(2X,F5.1),2X,F5.0,3X,4A1,2(5X,A2),2X,
     1F5.0,2(1X,F6.0),2F7.2,1X,F6.0,5X,A2,1X,F6.3,2X,F5.0)
6     FORMAT(1X,*THE TIME OF THIS DATA SET IS NOT 3 HRS BEFORE THE LAST
     1DATA SET*)
7     FORMAT(1X,*THE UATE OF THIS DATA SET SHOWS THAT THIS SET IS NOT 3
     1HOURS BEFORE THE LAST*)
8     FORMAT(2X,*STATION = *,A3,2X,*OZONE = *,F5.0)
9     FORMAT(A1)
5100  FORMAT(A3,13X,F5.1)
5250  FORMAT(1X,*BAD NEWS*)
5000  CALL MEMSETX(-999.,DATA,441)
C
C
C     READ HEADER CARD
C
C
      READ 5100,DUMMY,OZONE
      IF(DUMMY.NE.3H   ) GO TO 86
      DATA(2,21)=OZONE
      PRINT 4
```

```
C     READ DATA
C
      DO 5050 JJ=1,20
      READ 1,STA,(IDATE(K),K=1,3),ITIMEL,ITIMEZ,ALAT,ALONG,ITEMP,IDEW,
     1ICLD,(IWX(K),K=1,4),IHC,NOX,IWS
      IF(ITEMP.LE.0) GO TO 5050
      IF(JJ.NE.1) GO TO 5005
      IF(STA.EQ.STALAST) GO TO 5011
      STALAST=STA
 5011 DATA(1,21)=STA
 5005 IF(STA.NE.STALAST) GO TO 86
      ADUM=ALONG/15.
      BDUM=ALAT*0.01745
      SDUM=SIN(BDUM)
      CDUM=COS(BDUM)
 11   DATEJUL=30.5*(IDATE(2)-1)+IDATE(3)
      IF(JJ.EQ.1) GO TO 70
C     CHECK TO BE SURE DATA SETS ARE SEQUENTIAL IN TIME
      IF(NEXTIM.LE.0 ) NEXTTM=NEXTTM+24
      IF(NEXTIM.NE.ITIMEZ) PRINT 6
      IF(PREVDT.EQ.DATEJUL) GO TO 70
      IF(ITIMEZ.LT.21)GO TO 71
      DATE=30.5*(II2-1)+II3-1
      IF(DATE.EQ.DATEJUL) GO TO 70
      DATE=30.5*(II2-2)+IDATE(3)
      IF(DATE.EQ.DATEJUL) GO TO 70
 71   PRINT 7
 70   NEXTTM=ITIMEZ - 3
      PREVDT=DATEJUL
      II2=IDATE(2)
      II3=IDATE(3)
C
C
C     RELATIVE HUMIDITY INDEX .
C
C
C     CHANGE FARENHEIT TEMPERATURE TO CELSIUS
      TEMP=(ITEMP-32)*0.55556
      DP=(IDEW-32)*0.55556
C     COMPUTE SATURATION VAPOR PRESSURES
      EST=6107.8*EXP((17.269388*TEMP)/(TEMP+237.3))
      ESDP=6107.8*EXP((17.269388*DP)/(DP+237.3))
C     COMPUTE RELATIVE HUMIDITY
      DATA(18,JJ)=100.*(ESDP/EST)
C
C
C     EMISSION DENSITY INDICES
C
C
C     ASSIGN THE PROPER INDEX TO THE MAP SYMBOL AND LOCATE THE EMISSION
C     DENSITY CORRESPONDING TO THAT INDEX
      DO 40 K=1,20
      IF(IHC.EQ.INDEX3(K)) GO TO 41
 40   CONTINUE
      PRINT 3  $  EDHC=0  $  GO TO 44
 41   EDHC=TABLEHC(K)
 44   DO 42 K=1,20
      IF(NOX.EQ.INDEX3(K)) GO TO 43
 42   CONTINUE
      PRINT 3  $  EDNOX=0  $  GO TO 45
 43   EDNOX=TABLNOX(K)
C     CHANGE THE LOCAL TIME TO DAYLIGHT TIME SO THAT THE PROPER DIURNAL
```

```
C     CURVE VALUE IS APPLIED
 45   ITM=ITIMEL+1
      IF(ITM.GT.24) ITM=1
      MONTH=IDATE(2)
C     COMPUTE 3-HR AVERAGE DIURNAL CORRECTION FACTOR
      ITM1=ITIMEL
      ITM2=ITM+1
      IF(ITM2.GT.24) ITM2=1
      DDUM1=(DHHC(ITM1)+DHHC(ITM)+DHHC(ITM2))/3.
      DDUM2=(DHNOX(ITM1)+DHNOX(ITM)+DHNOX(ITM2))/3.
C     COMPUTE EMISSION INDEX
      DATA(16,JJ)=SMHC(MONTH)*DDUM1*EDHC*33.3333
      DATA(17,JJ)=SMNOX(MONTH)*DDUM2*EDNOX*33.3333
C
C
C     PRECIPITATION INDEX
C
C
C     CHECK TO SEE IF THERE IS NO WEATHER--IF SO SKIP CALCULATIONS AND
C     SET INDEX = 0
      DO 19 J=1,4
      IF(IWX(J).NE.0) GO TO 18
 19   CONTINUE
      INDEXP=DATA(21,JJ)=0  $  GO TO 30
C     INITIALIZE INDICES
 18   IPTYPE=0  $  INT=0  $  IFREQ=0
C     FIND OUT WHETHER PRECIP IS RAIN, SNOW, DRIZZLE, OR SHOWERS
      DO 20 L=1,4
      DO 21 K=1,4
      IF(IWX(L).EQ.INDEX1(K)) IPTYPE=K
 21   CONTINUE
 20   CONTINUE
      IF(IPTYPE.NE.0) GO TO 29
      INDEXP=DATA(21,JJ)=0  $  GO TO 30
C     FIND OUT IF PRECIP IS LIGHT, MODERATE, OR HEAVY
 29   DO 22 K=1,2
      IF(IWX(4).EQ.INDEX2(K)) INT=K
 22   CONTINUE
      INT=INT+1
C     FIND OUT IF PRECIP IS INTERMITTENT OR CONTINUOUS
      DO 23 L=1,3
      IF(IWX(L).EQ.1HI) IFREQ=1
 23   CONTINUE
      IFREQ=IFREQ+1
C     CLASSIFY INTENSITY INTO ONE OF 9 TYPES
      IF(IPTYPE.EQ.4) GO TO 28
      INTENS=ICAT(INT,IFREQ)
      GO TO 24
 28   GO TO (25,26,27) INT
 25   INTENS=8  $  GO TO 24
 26   INTENS=7  $  GO TO 24
 27   INTENS=9
C     COMPUTE PRECIPITATION INDEX
 24   DATA(21,JJ)=IPRECIP(INTENS,IPTYPE)
C
C
C     INSOLATION INDEX
C
C
C     COMPUTE SOLAR DECLINATION
 30   H=ITIMEL-ADUM
      TDELTA=-0.4348*COS(0.01721*(DATEJUL+10.))
      CDELTA=1./SQRT(TDELTA*TDELTA+1.)
      SDELTA=TDELTA*CDELTA
C     COMPUTE SINE OF SOLAR ELEVATION ANGLE
      SALPHA=SDELTA*SDUM+COS(0.2618*(H-12.))*CDELTA*CDUM
C     IF SINE OF SOLAR ELEVATION ANGLE IS LESS THAN ZERO, SET IT = 0
      XALPHA=SALPHA
      IF(XALPHA.LT.0.) XALPHA=0.
C     COMPUTE INSOLATION INDEX
      DATA(20,JJ)=(1.-0.05*ICLD)*XALPHA
C
C
C     STABILITY INDEX
C
C
C     IS IT OVERCAST (CLOUD COVER GREATER THAN OR = 9/10)
      IF(ICLD.GE.9) GO TO 51
C     IS IT NIGHTTIME
      IF(SALPHA.LT.0.) GO TO 50
C     IS IT NEAR SUNRISE OR SUNSET
      IF(SALPHA.LE.0.25882) GO TO 51
C     IS INSOLATION STRONG, MODERATE OR SLIGHT
      IF(AINSUL.LT.0.3) GO TO 52
      IF(AINSUL.LE.0.55) GO TO 53
      IHEAT=1  $  GO TO 59
 52   IHEAT=3  $  GO TO 59
 53   IHEAT=2  $  GO TO 59
 51   IHEAT=4  $  GO TO 59
 50   IF(ICLD.GE.5) GO TO 54
      IHEAT=6  $  GO TO 59
 54   IHEAT=5
C     CLASSIFY SURFACE WINDS
 59   IF(IWS.LE.3) GO TO 60
      IF(IWS.LE.6) GO TO 61
      IF(IWS.LE.10) GO TO 62
      IF(IWS.LE.12) GO TO 63
      IWIND =5  $  GO TO 69
 60   IWIND=1   $  GO TO 69
 61   IWIND=2   $  GO TO 69
 62   IWIND=3   $  GO TO 69
 63   IWIND=4
C     SELECT STABILITY INDEX
 69   STAB=STABLE(IWIND,IHEAT)
C
C
C     STORE REST OF DATA IN ARRAY
C
C
      DATA(1,JJ)=IDATE(1)*10000+IDATE(2)*100+IDATE(3)
      DATA(2,JJ)=ITIMEL  $  DATA(3,JJ)=ITIMEZ
      DATA(4,JJ)=ALAT  $  DATA(5,JJ)=ALONG
      DATA(6,JJ)=ICLD
      ENCODE(1,9,DATA(7,JJ)) IWX(1)
      ENCODE(1,9,DATA(8,JJ))IWX(2)
      ENCODE(1,9,DATA(9,JJ))IWX(3)
      ENCODE(1,9,DATA(10,JJ))IWX(4)
      ENCODE(1,9,DATA(11,JJ))IHC
      ENCODE(1,9,DATA(12,JJ))NOX
      DATA(13,JJ)=IWS
      DATA(14,JJ)=ITEMP  $  DATA(15,JJ)=IDEW
      ENCODE(1,9,DATA(19,JJ))STAB
C
C
```

```
C      PRINT OUTPUT
C
C
       PRINT 5,(DATA(I,JJ),I=1,21)
 5050  CONTINUE
C
C
C      WRITE DATA FOR LAST TRAJECTORY ON TAPE
C
C
       WRITE (6)((DATA(I,J),J=1,20),I=1,21),(DATA(K,21),K=1,21)
       PRINT 8,DATA(1,21),DATA(2,21)
       GO TO 5000
 86    IF(DUMMY.EQ.3H999) GO TO 5200
       PRINT 5250
 5200  END FILE 6
       END FILE 6
       STOP
       END
```

# References

Ludwig, F.L. and W.F. Dabberdt, 1976: Comparison of Two Practical Atmospheric Stability Classification Schemes in an Urban Application, J. Appl. Meteorol., 15, 1172-1176.

Ludwig, F.L. and W.F. Dabberdt, 1972: Evaluation of the APRAC-1A Urban Diffusion Model for Carbon Monoxide. Final Report, EPA and CRC Contarct CAPA-3-68 (1-69)

## Appendix C

## COMPUTATION OF MONTGOMERY STREAM FUNCTIONS

The Montgomery stream function on an isentropic surface is defined as

$$M = gz_\theta + c_pT_\theta \qquad \text{(C-1)}$$

where g is the acceleration of gravity, $z_\theta$ is the height of the isentropic surface above sea level, $c_p$ is the specific heat of air at constant pressure, and $T_\theta$ is the temperature of the isentropic surface.

Isentropic stream function values computed from Equation (1) are highly sensitive to input errors. Values of $z_\theta$ and $T_\theta$, therefore, cannot be read separately from sounding curves but have to be made consistent with each other by using appropriate hydrostatic and thermodynamic equations (Reiter, 1972). The following equation is suggested for the computation of Montgomery stream functions from actual sounding data:

$$M = c_pT_\theta + gz_p + R[T]_{(\ln p)} \ln \left[ \frac{P_p}{1000} \left( \frac{\theta}{T_\theta} \right)^{c_p/R} \right], \qquad \text{(C-2)}$$

where $z_p$ is the height of the standard constant-pressure surface closest to the isentropic surface under consideration. (The computational program uses either the next standard pressure surface below the isentropic surface or the surface pressure and height above sea level of the observing station.) R is the gas constant for dry air, $[T]_{(\ln p)}$ is the mean temperature, averaged with respect to the logarithm of pressure, of the layer between the standard pressure surface $P_p$ (the height of which is $z_p$) and the isentropic surface. $\theta$ is the potential temperature (°K) of the isentropic surface under consideration. It is important to choose precise values for the constants in Equation (C-2). The following values are recommended:

$T(^\circ K) = 273.2 + (^\circ C)$

$g = 980.6 \text{ cm/sec}^2$

$c_p = 1.0046 \times 10^7 \text{ ergs/g/}^\circ K$

$R = 2.8704 \times 10^6 \text{ ergs/g/}^\circ K$

Pages C1 and C2 are blank.

The temperature $T_\theta$ of the isentropic surface is computed as

$$T_\theta = T_b + (T_a - T_b)\,\frac{\theta - \theta_b}{\theta_a - \theta_b} \quad , \qquad \text{(C-3)}$$

where subscripts a and b refer to parameter values observed at the two significant points along the sounding above (a) and below (b) the isentropic surface in question. The potential temperatures $\theta_a$ and $\theta_b$ are computed from Poisson's equation

$$P_\theta = 1000 \left(\frac{T_\theta}{\theta}\right)_{c_p/R} \quad , \qquad \text{(C-4)}$$

where $P_\theta$ and $T_\theta$ are the pressures and temperatures of the significant sounding point for which $\theta$ is to be computed.

The value of $[T]_{(\ln p)}$ in Equation C-2 is determined by summing the pressure-weighted temperatures of all significant points between the standard isobaric surfaces $p_p$ and $p_\theta$. Since the distance between these two pressure levels usually is small, it suffices to weight the temperatures with respect to linear pressure rather than to the logarithm of pressure, i.e., $[T]_{(p)} \approx [T]_{(\ln p)}$. The following equation has been adopted:

$$[T]_{(p)} = \sum_{i=1}^{N} \left[ \frac{T_i + T_{i+1}}{2} \cdot \frac{p_i - p_{i+1}}{p_p - p_\theta} \right] ,$$

$$= \frac{1}{2(p_p - p_\theta)} \sum_{i=1}^{N} \left[ (T_i + T_{i+1})(p_i - p_{i+1}) \right] \qquad \text{(C-5)}$$

N is the total number of significant points entering into the computation.

Two computer programs have been developed for a Hewlett-Packard 9820A calculator. The first program allows the storage of up to 10 data points from a sounding on one magnetic card. These data points are read into the computer in the order of decreasing pressure values. The second program processes data cards consecutively and prints the station identification number, $T_\theta$, $p_\theta$, $z_\theta$, and M.

The listings of the two programs follow.

## Program 1: Data Storage on Magnetic Cards

| Line No. | Program | Explanation |
|---|---|---|
| 0 | TBL 4; TBL 5; CFG 2 | Clear all registers. |
| 1 | IF FLG 2=0; GTO 3 | |
| 2 | REC "DA", R30 | |
| 3 | CFG 2; CFG 13; SPC 3; 0→X; ENT "ID. NO", R0; PRT "ID. NO", R0 | Station identification number |
| 4 | ENT "MB=", R(1+3X); PRT "MB=", R(1+3x) | Pressure (mb) of sounding data point |
| 5 | ENT "Z=", R(2+3X); PRT "Z=", R(2+3X) | Height (m) of standard level data point. If no height value is available (as with "significant points") punch 00. |
| 6 | ENT "TEMP=", R(3+3X); PRT "TEMP=", R(3+3X) | Temperature (°C) of data point |
| 7 | X+1→X | |
| 8 | IF FLG 13=0; GTO 4 | |
| 9 | SFG 2; GTO 1 | |
| 10 | END; GTO 3 | |

## Program 2: Computation of Characteristic Values of Isentropic Surface

| Line No. | Program | Explanation |
|---|---|---|
| 0 | TBL 4; TBL 5; CFG 2 | Clear all registers. |
| 1 | ENT "P.T.", A; PRT "P.T.", A | Punch desired potential-temperature value (°K) of isentropic surface. |
| 2 | IF FLG 2=0; GTO 33 | |
| 3 | SPC 3; PRT "STA. I.D.", R0 | |
| 4 | GSB "T THETA" | |
| 5 | PRT "T THETA", R35 | |
| 6 | 1000*(R35/A)↑3.499860647→R36 | |
| 7 | PRT "P THETA", R36 | |
| 8 | GSB "M" | |
| 9 | PRT "M", R46; GTO 33 | |
| 10 | "T THETA"; R(3+3B)+273.2→R31 | Convert °C of data points to °K. |
| 11 | R31(1000/R(1+3B))↑0.285725662→R32 | Compute potential temperature Θ for data point (eqn. 4). |
| 12 | B+1→B; R(3+3B)+273.2→R33 | Go to next data point and perform the same calculations. |
| 13 | R33(1000/R(1+3B))↑0.285725662→R34 | |
| 14 | IF A>R34; GTO 10 | Repeat these calculations as long as the data points lie below the isentropic surface under consideration. |
| 15 | R31+(R33-31)(A-R32)/(R34-R32)→R35 | Compute $T_\Theta$ from eqn. (3). |
| 16 | RET | |
| 17 | "M"; B-1→B; Z+1→Z | |
| 18 | IF 0>B; GTO 22 | |
| 19 | IF R(2+3B)=0; GTO 21 | |
| 20 | GTO 17 | |
| 21 | R(2+3B)→R37; R(1+3B)→R38 | |

## Program 2 Continued

| Line No. | Program | Explanation |
|---|---|---|
| 22 | IF Z≤1; GTO 27 | Search for standard pressure level for which a value $z_p \neq 0$ is available. (For significant points $z_p$ has been punched as 00.) |
| 23 | B+1→C; R(3+3B)+273.2+R(3+3G)+ 273.2→R39 | Compute $T_i+T_{i+1}$ in °K (see eqn. 5). |
| 24 | R(1+3B)-R(1+3C)→R40 | Compute $p_i-p_{i+1}$ (see eqn. 5). |
| 25 | R39*R40+X→X | $(T_i+T_{i+1})(p_i-p_{i+1})$ |
| 26 | Z-1→Z; B+1→B; GTO 22 | |
| 27 | (R(3+3B)+273.2+R35)*(R(1+3B)-R36)+ X→X | |
| 28 | X/2(R38-R36)→R41 | $[T]_p$ according to eqn. 5 |
| 29 | (A/R35)↑3.499860657*R38/1000→R42 | Compute argument of ln-term in eqn (2). |
| 30 | 1.0046E7*R35→R43;980.6*R37*10↑2→R44; 2.8704E6*R41*LN R42→R45 | Compute individual terms of eqn. (2). |
| 31 | R43+R44+R45→R46;(R44+R45)/98060→R47 | Compute M; compute $z_\theta$ from last two terms of eqn (2). |
| 32 | PRT "Z THETA", R47; RET | |
| 33 | SFG 2; 0→B; 0→X; 0→Z; GTO 34; LOD | |
| 34 | GTO 3 | |
| 35 | END | |

## Appendix D

## DAILY WEATHER AND PEAK-HOUR OZONE MAPS FOR 1974

The following pages present weather and ozone distribution maps for the eastern United States for each day of 1974. The maximum and minimum temperatures for the day are plotted on the small inset maps. Isotherms of maximum temperature have also been drawn on these small maps to show where the warmer areas were during the day.

The weather maps and the maximum/minimum temperature maps were taken directly from the National Weather Service Analyses distributed in the "Daily Weather Map" Series. The weather maps illustrate the conditions that prevailed at 0700 EST (1200 GMT). The station data for this time are also shown. Tracks of prominent low pressure areas are marked by chains of arrows with prior locations shown by small white crosses at 6-hour intervals before map time. Areas of precipitation are shaded on the map.

The temperature maps are transposed from the order in which they appear in the "Daily Weather Map" series, so that the data apply between 0100 EST on the date of the weather map and the same time on the following date. Thus, the maximum temperatures is usually applicable to the afternoon of the date shown, and the minima will usually have occurred during the hours around dawn of the day shown.

The daily peak-hour ozone charts are based on SAROAD data. The initial steps in analyzing the data to produce the charts consisted of:

- converting all units to parts per billion
- selecting the daily maximum ozone concentrations from hourly values (a daily maximum was obtained only if there were at least 16 hourly reports during a day and not more than 2 missing hourly reports during the period from 0800 to 1800)
- deleting any zero value obtained for the maximum ozone concentration or any excessively high value (> 300 ppb during winter and > 500 ppb during summer)

Pages D1 and D2 are blank.

- averaging all observations that were located within the same urban area in order to obtain a single value for subsequent analysis. This was done to prevent the overemphasis of observations within a single, restricted area.

After these preliminary steps, an objective analysis was performed. This analysis began with interpolation from the irregularly spaced observations to obtain a set of values at regularly spaced grid points. A total of 399 grid points were used in the preparation of these analysis. These grid point values then provided the framework for generating computer isopleths of the daily maximum-hour ozone values. The fitting of a polynomial surface to observations is a natural approach that is frequently used for interpolating grid-point values. In the objective analysis used in this study, each grid-point value of ozone concentration was obtained by a least-squares fit of a first-degree polynomial surface to K nearby observations that were weighted inversely with distance (Endlich and Mancuso, 1968; Mancuso and Endlich, 1973). An optimum fit is obtained by minimizing

$$\hat{q} = \sum_{I}^{K} w(q - q)^2 \quad ,$$

where w is a weighting factor, q us an observed value at some location (x,y) and $\hat{q}$ is the polynomial estimate for the same location (a + bx + cy). An initial estimated value for the grid point is treated as the first observational value and is given a fixed weight $w_1$ (the initial estimate is obtained by computing a simple weighted average of adjacent observations.) A relatively low value is normally assigned to $w_1$ so that the initial estimate will have a significant influence only in areas where there are no nearby data. The remaining K - 1 observations are the ones nearest the grid point. However, it is required that at least one observation (if available) be selected from each of the four angular quandrants ($0^\circ - 90^\circ, 90^\circ - 180^\circ$, $180^\circ - 270^\circ$, and $270^\circ - 360^\circ$). This keeps the analysis continuous in regions of poorly distributed data. A value of 5 was used for K.

The weighting for an observation is computed by

$$w = C^2 / [C^2 + D^2]$$

where C is a constant and D represents the distance between the grid point and the observation; thus, the closer an observation is to the grid point, the greater the weighting. This distance weighting is important in this type of analyses, because if it is not incorporated, or if C is set too high, the analysis is overly smoothed. In this study a value of about 60 km for C was found through experimentation to give the most satisfactory fitting of the data.

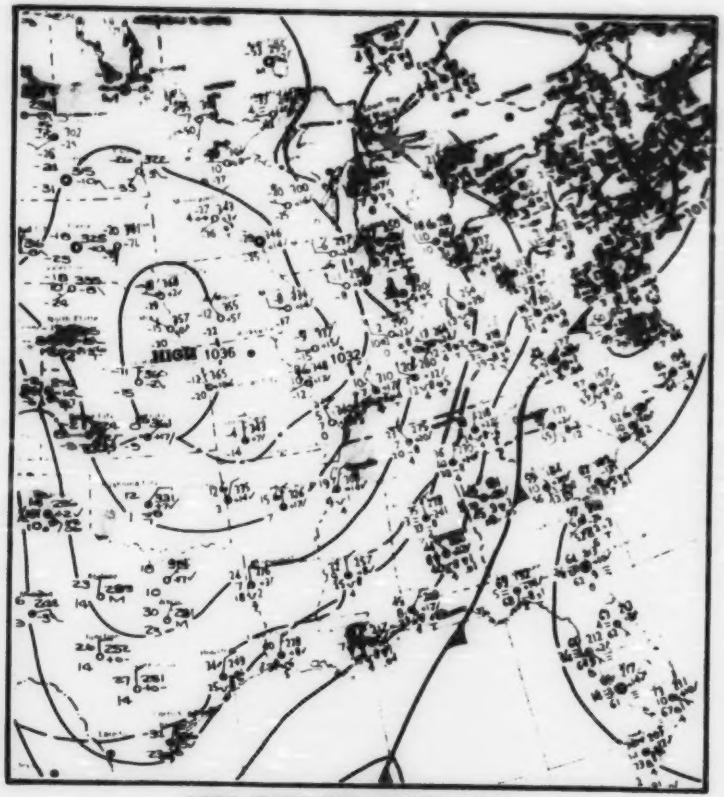
The objective analyses were performed on a rectangular grid. The individual station values are also plotted along with a designator (letter H) of high value locations.

The daily maps follow.

# References

Endlich, R.M. and R.L. Mancuso, 1968: Objective Analysis of Environmental Conditions Associated with Severe Thunderstorms and Tornadoes. Mon. Wea. Rev., 96, 342-350.

Mancuso, R.L. and R.M. Endlich, 1973: Wind Editing and Analysis Program Spherical Grid (WEAP-1A). User's Manual, Contract DAHC04-71-C-0013, Stanford Research Institute, Menlo Park, California, 69 pp.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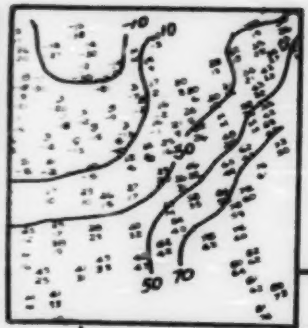
1200 GMT WEATHER MAP



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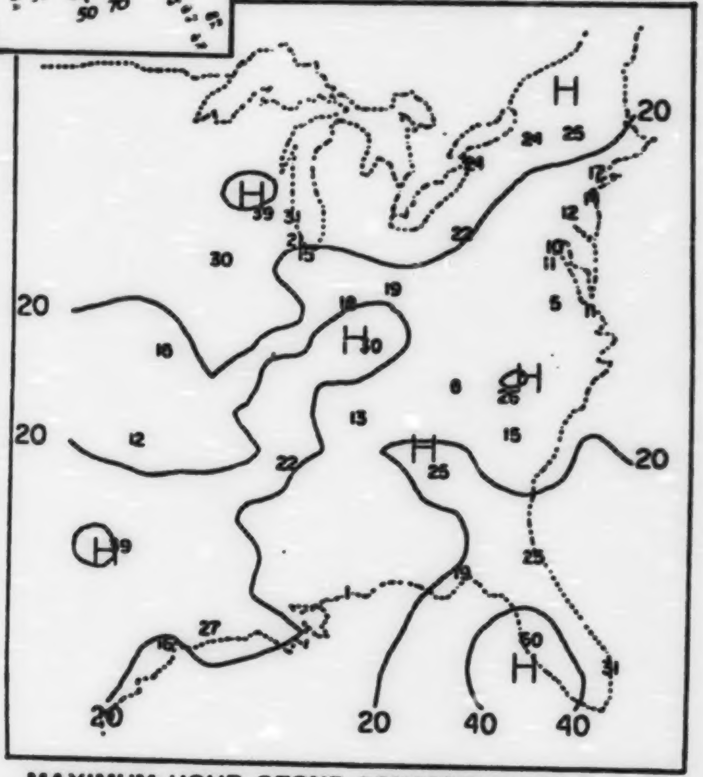
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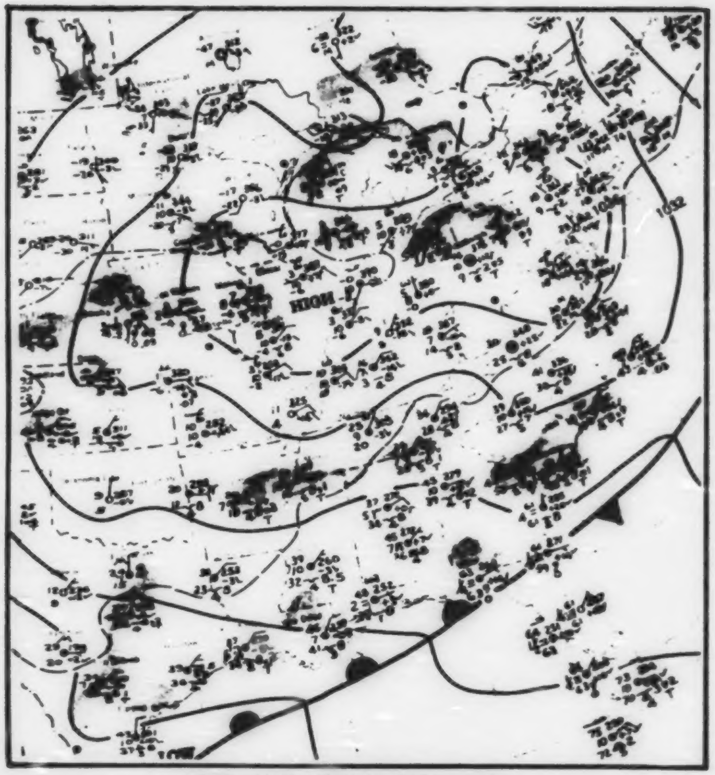
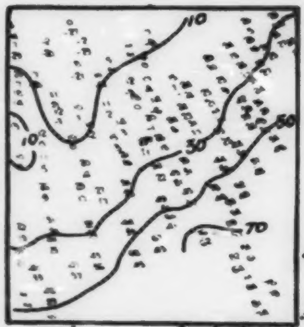
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, JANUARY 1, 1974



1200 GMT WEATHER MAP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MAXIMUM-
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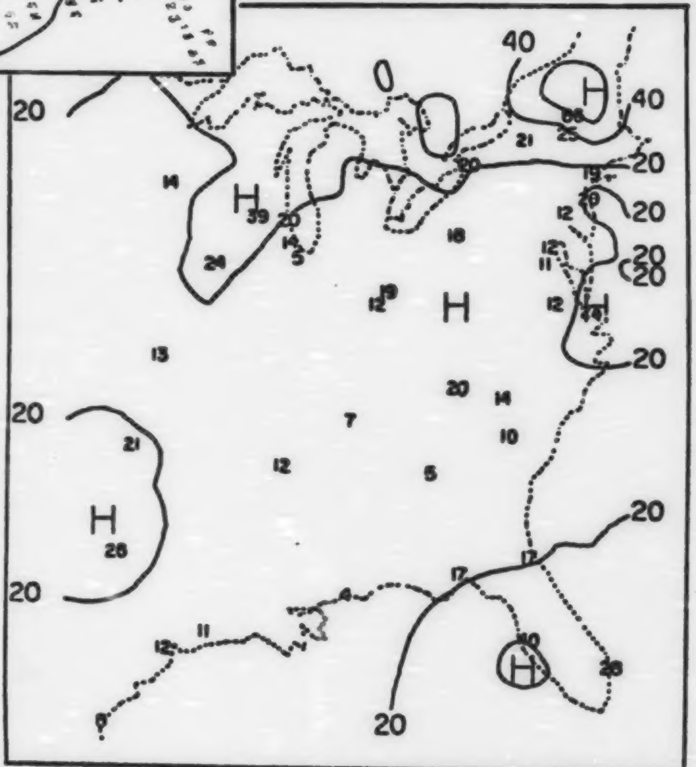
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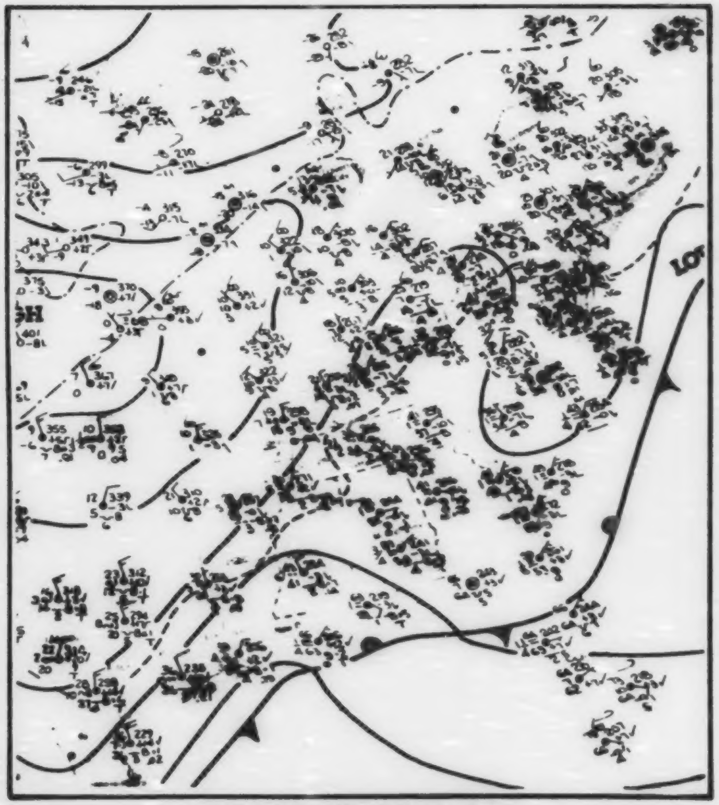
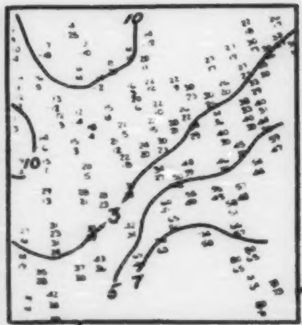
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, JANUARY 2, 1974



1200 GMT WEATHER MAP



MAXIMUM-
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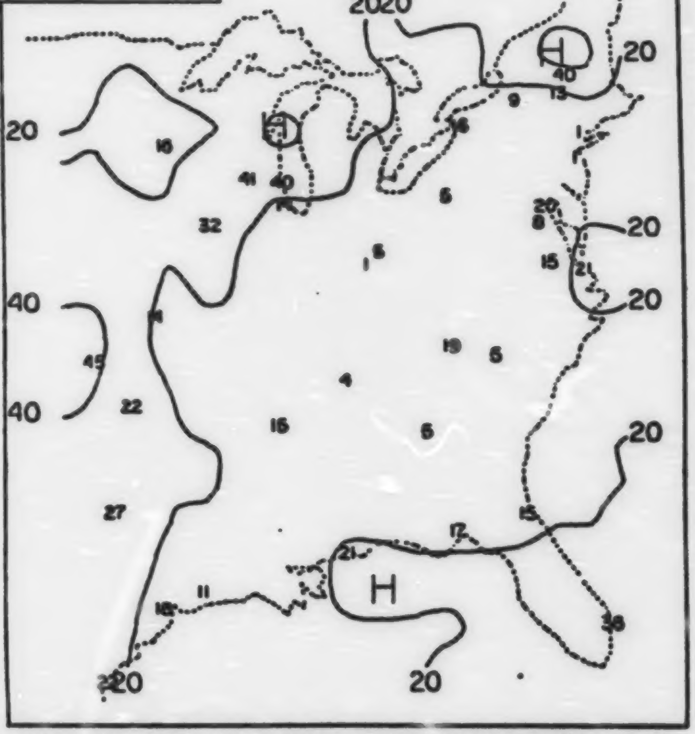
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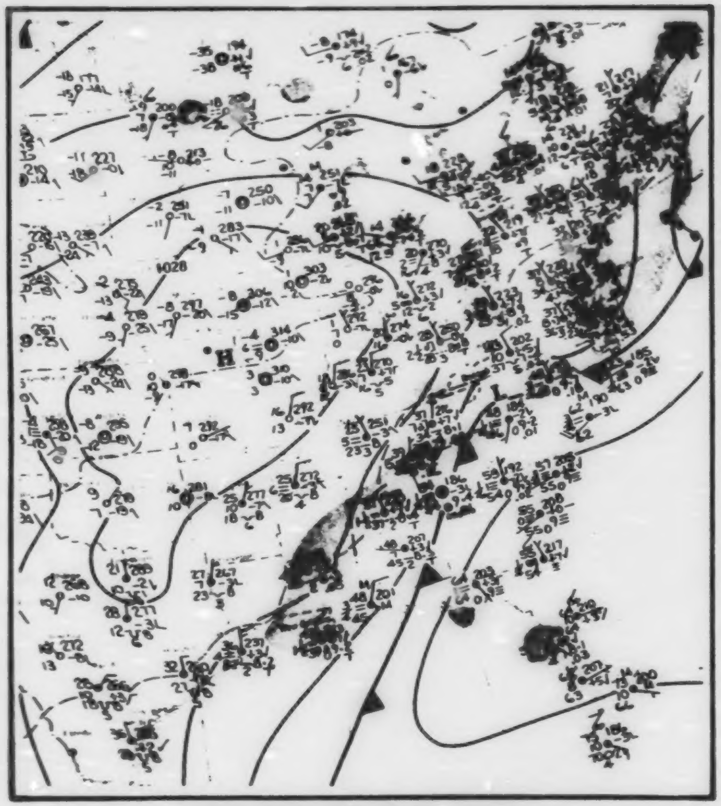
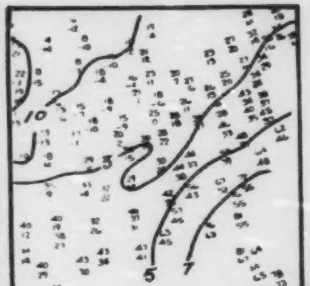
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, JANUARY 3, 1974



1200 GMT WEATHER MAP



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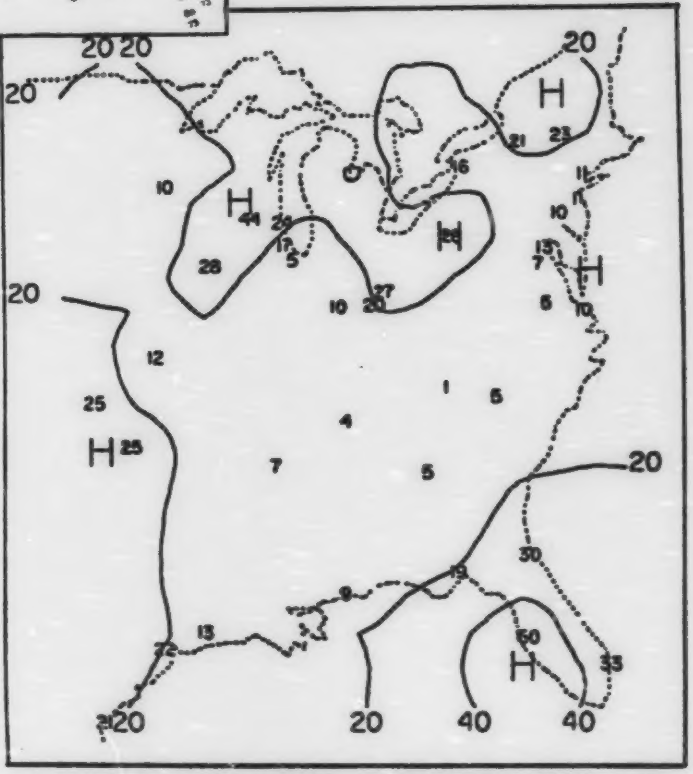

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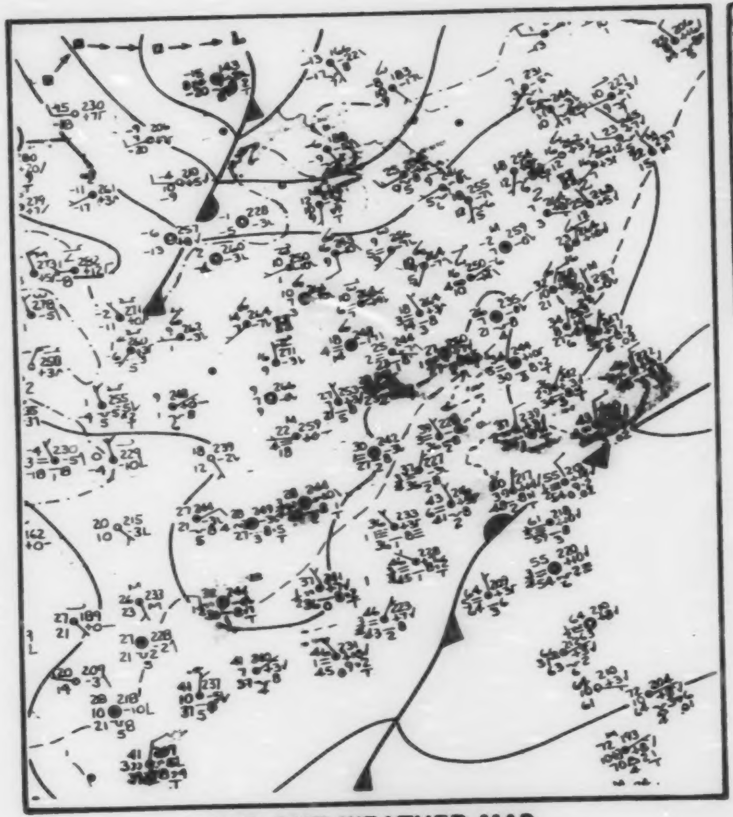
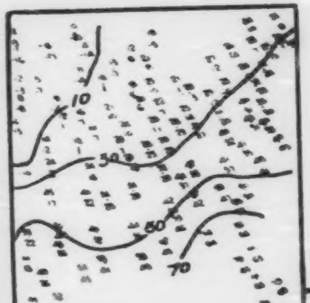
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, JANUARY 4, 1974



1200 GMT WEATHER MAP



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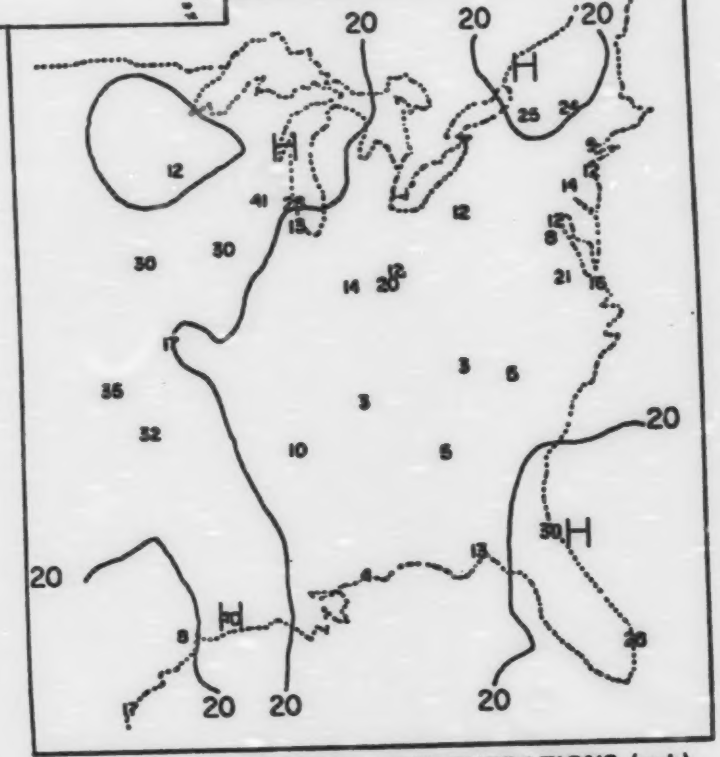
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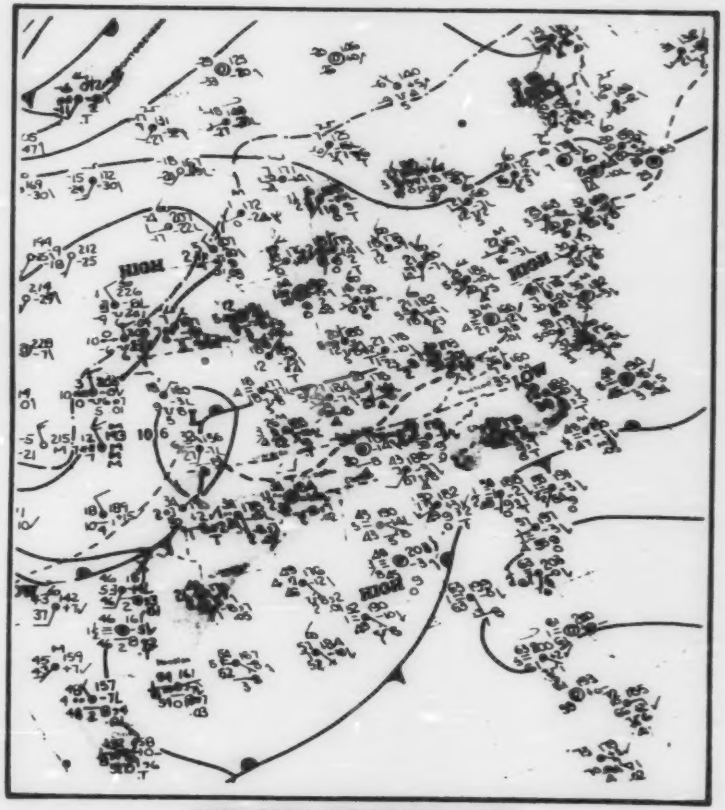
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, JANUARY 5, 1974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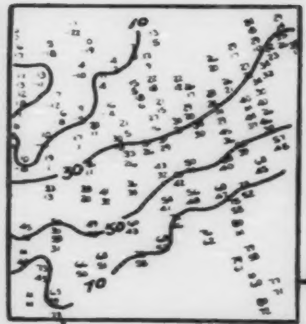
1200 GMT WEATHER MAP



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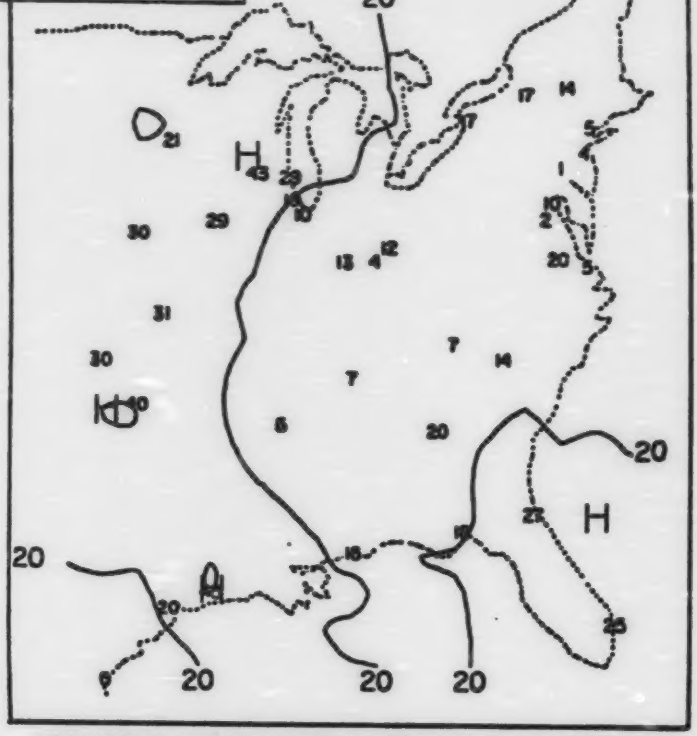
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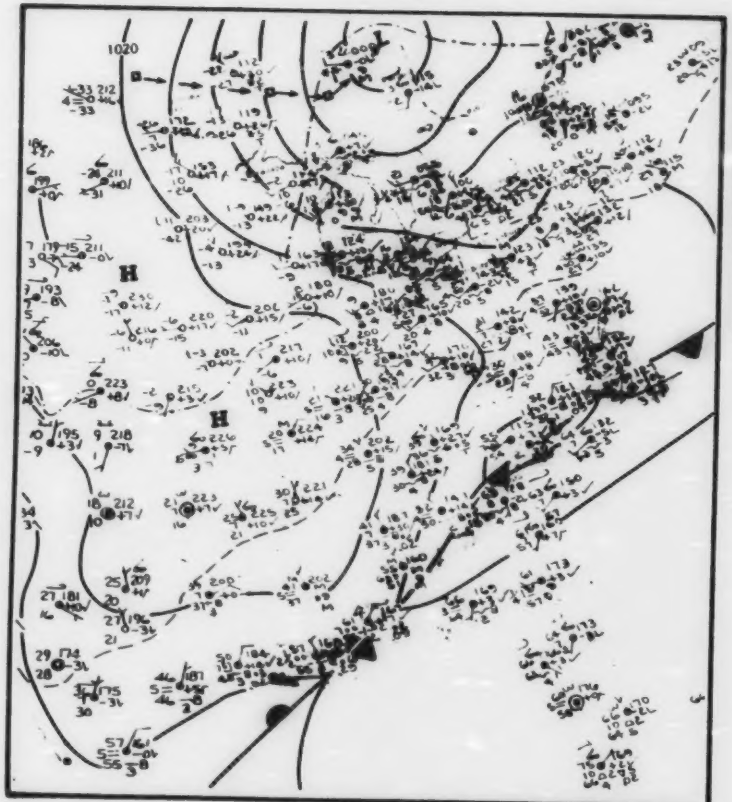
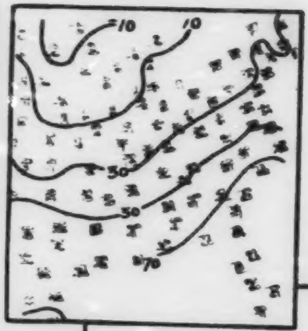
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, JANUARY 6, 1974



1200 GMT WEATHER MAP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MAXIMUM-
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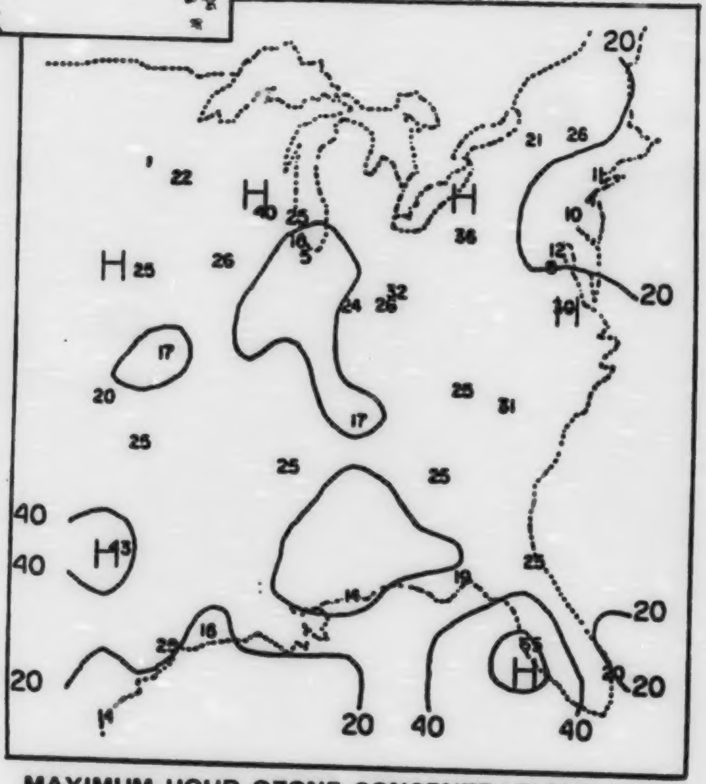
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65
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14
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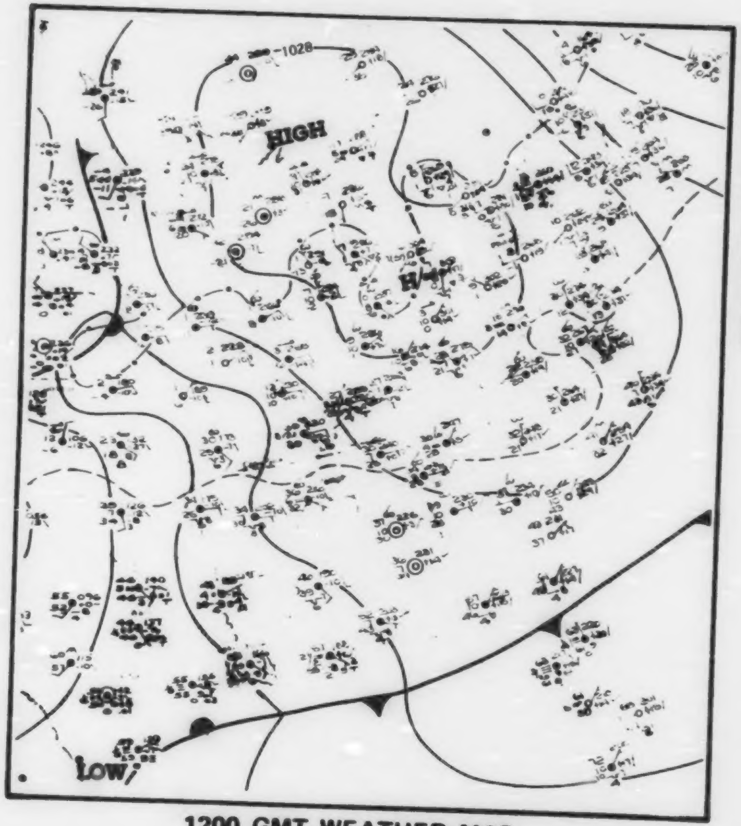
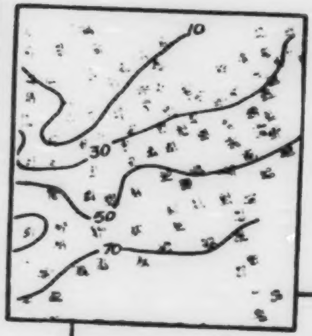
40

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

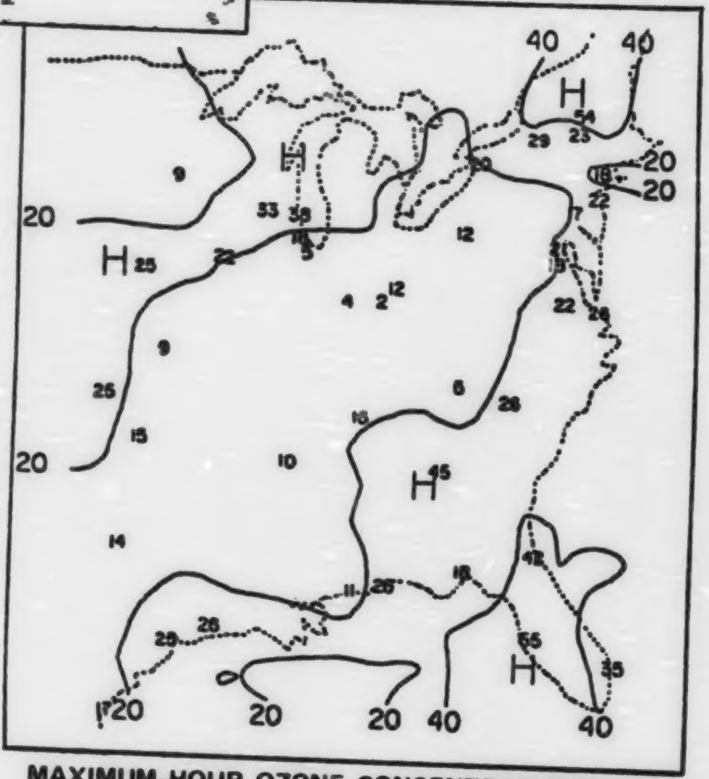
MONDAY, JANUARY 7, 1974


1028
HIGH
LOW

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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38
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45
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42
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35
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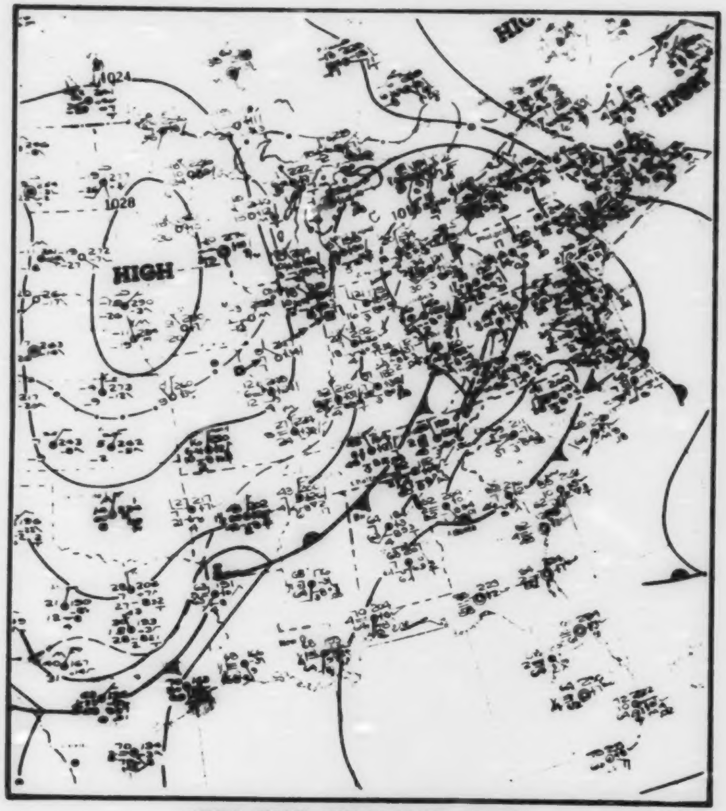
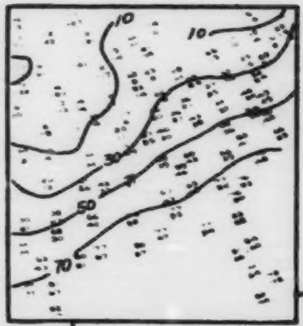
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, JANUARY 8, 1974


HIGH
1024
1028
HIGH
HIGH

1200 GMT WEATHER MAP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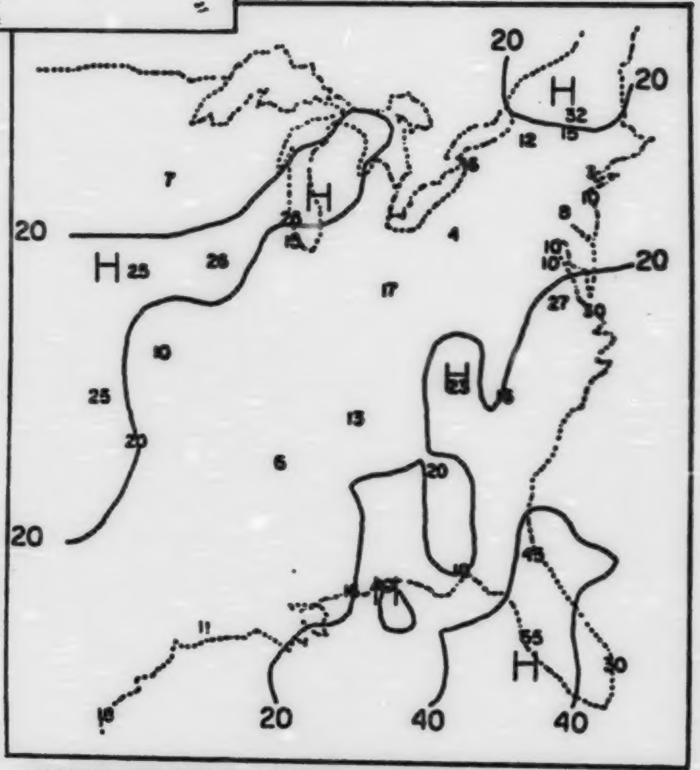
MAXIMUM-
MINIMUM
TEMPERATURE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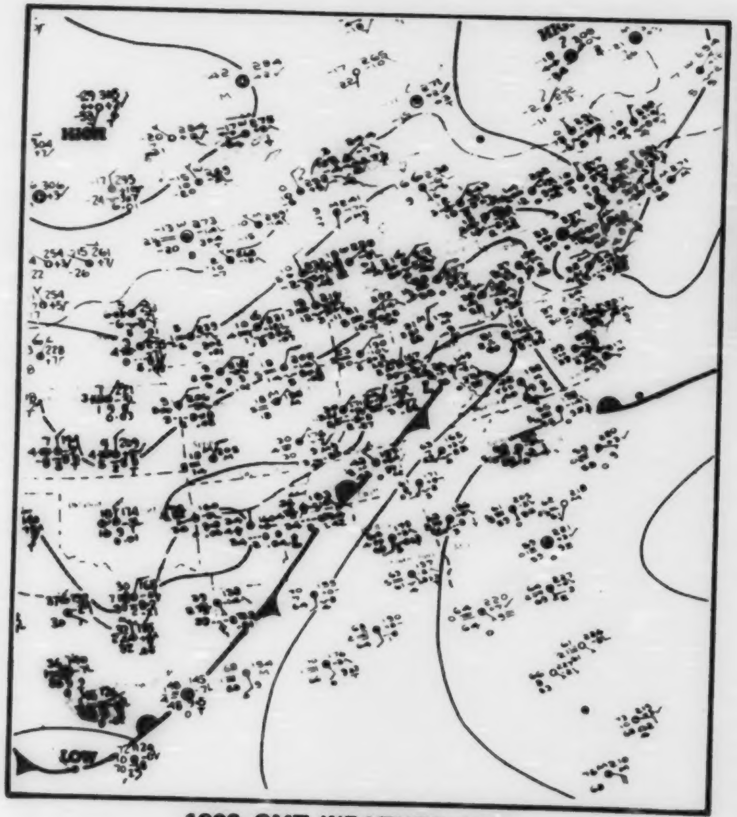
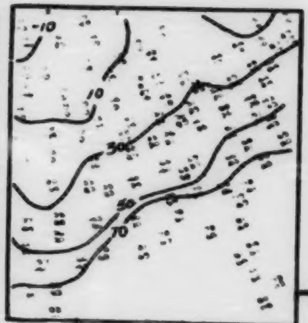
40

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, JANUARY 9, 1974



1200 GMT WEATHER MAP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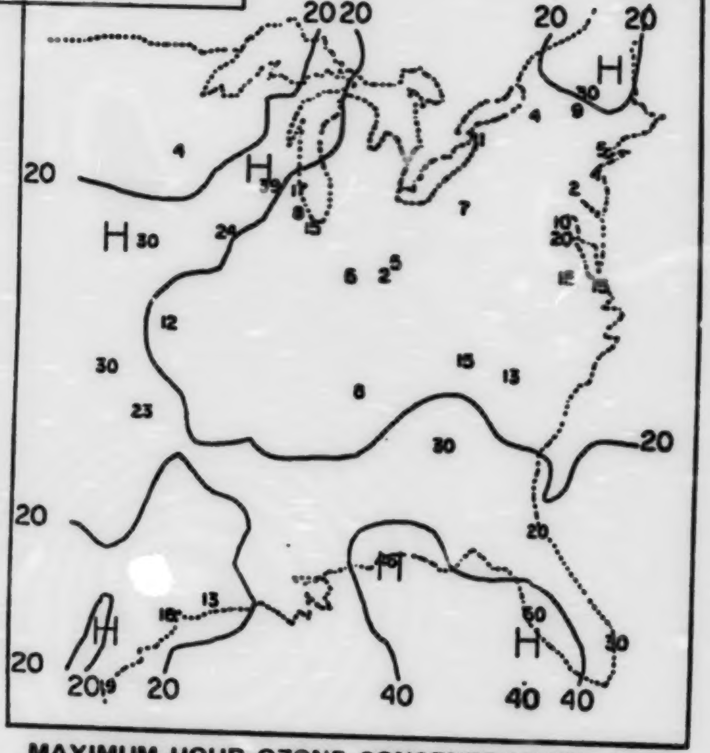
MAXIMUM-
MINIMUM
TEMPERATURE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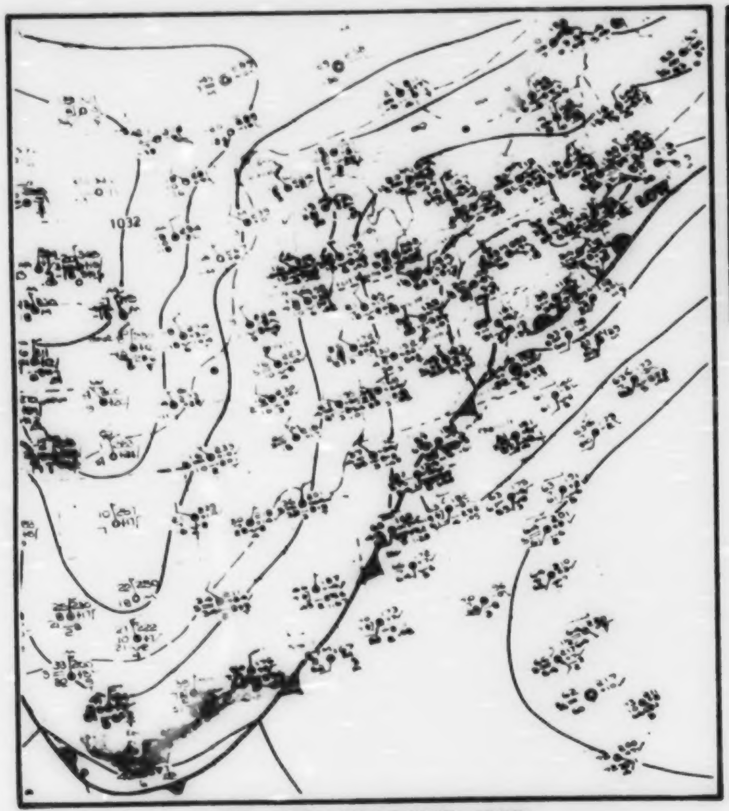
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, JANUARY 10, 1974



1200 GMT WEATHER MAP

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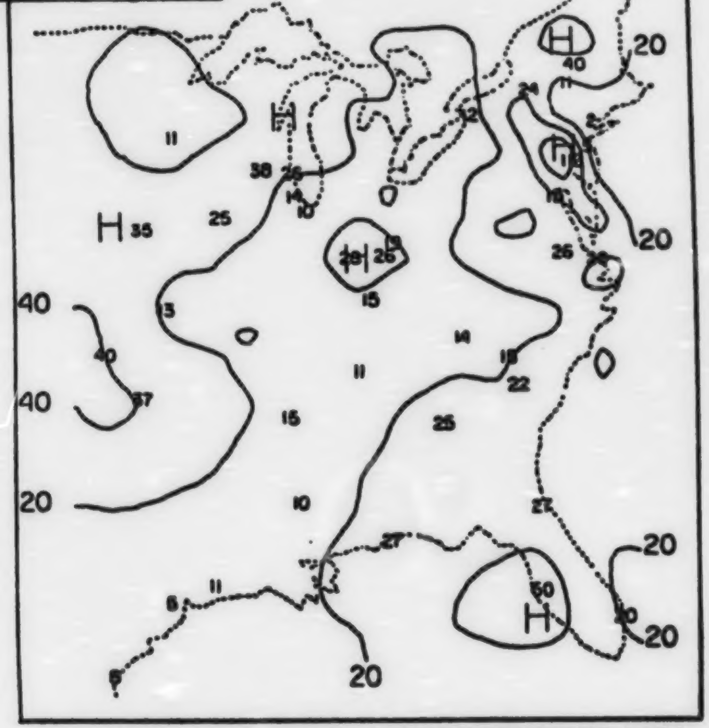
MAXIMUM-
MINIMUM
TEMPERATURE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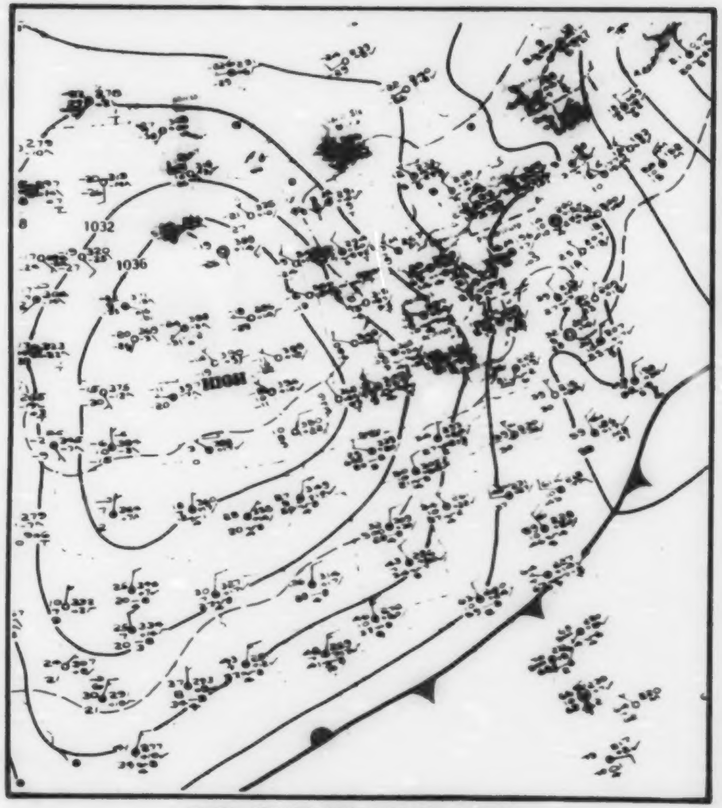
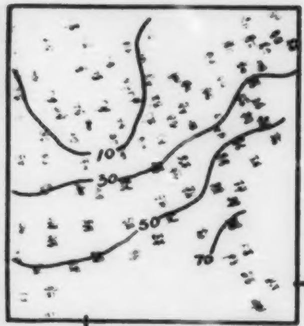
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

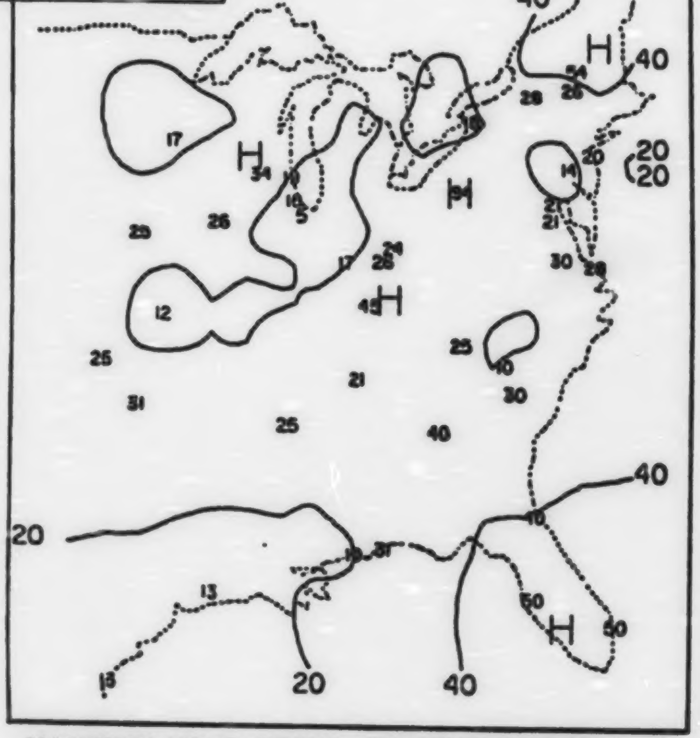
FRIDAY, JANUARY 11, 1974


1032
1036
HIGH

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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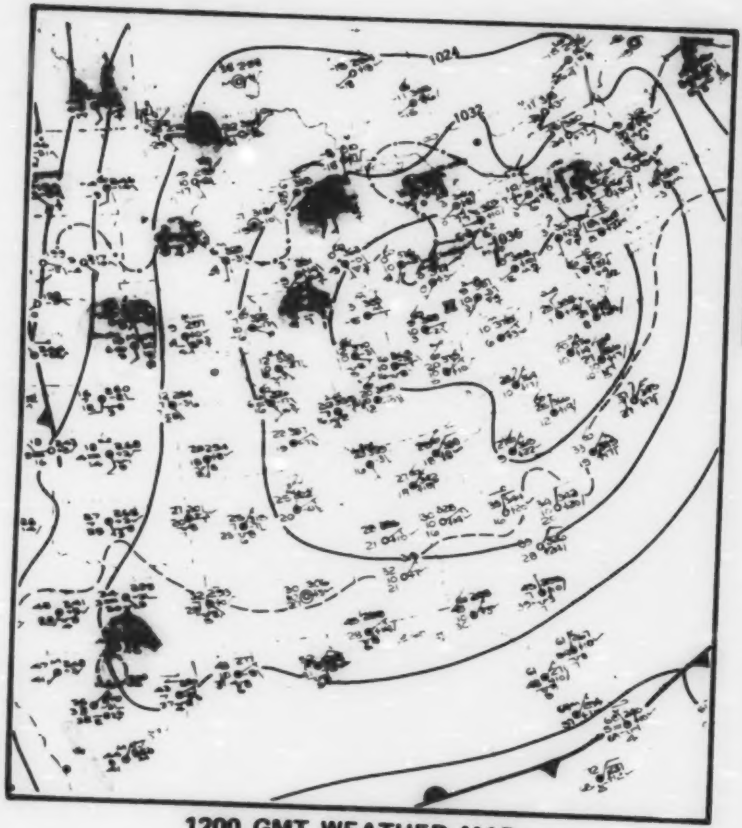
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, JANUARY 12, 1974


1024
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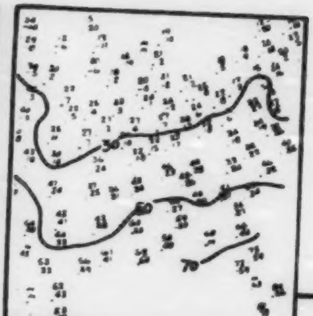
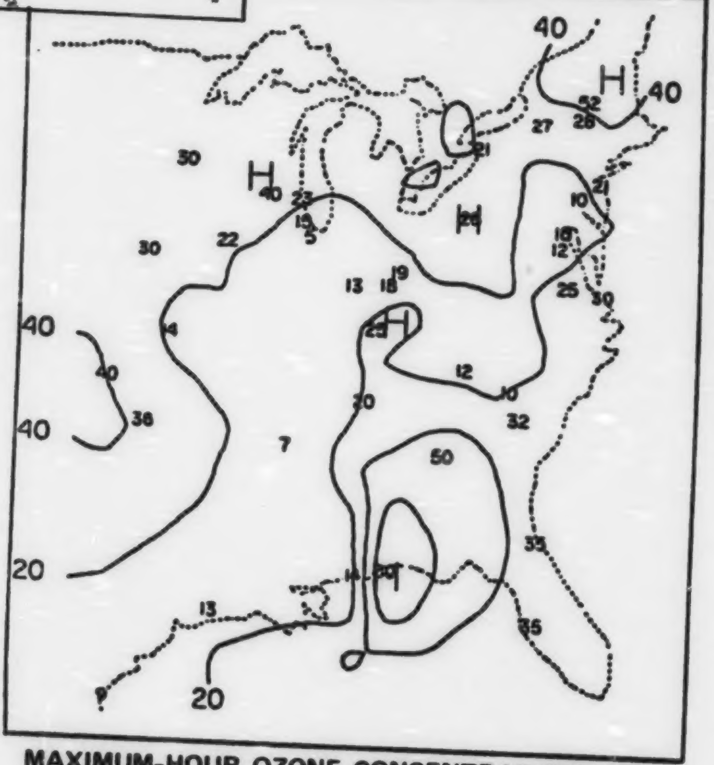
1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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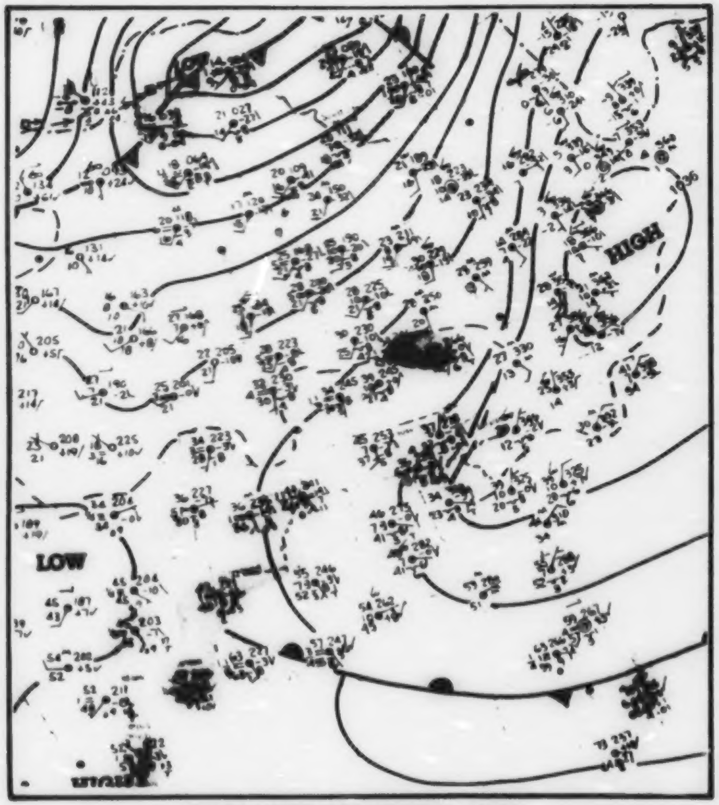
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, JANUARY 13, 1974



HIGH
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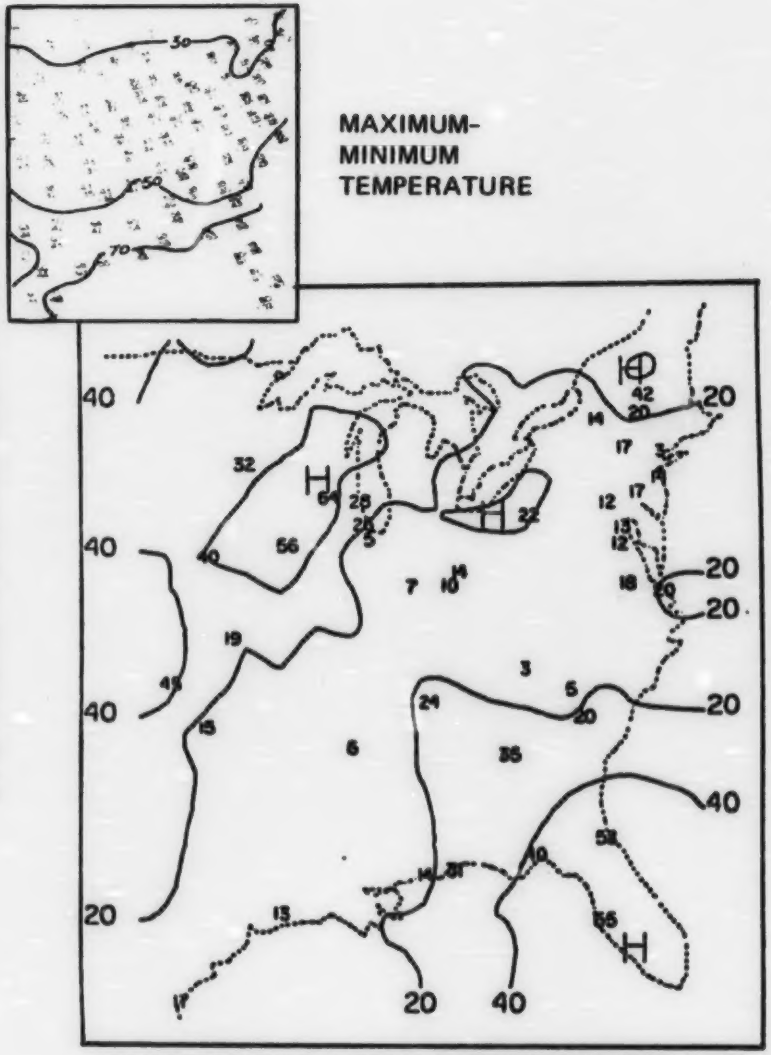
1200 GMT WEATHER MAP



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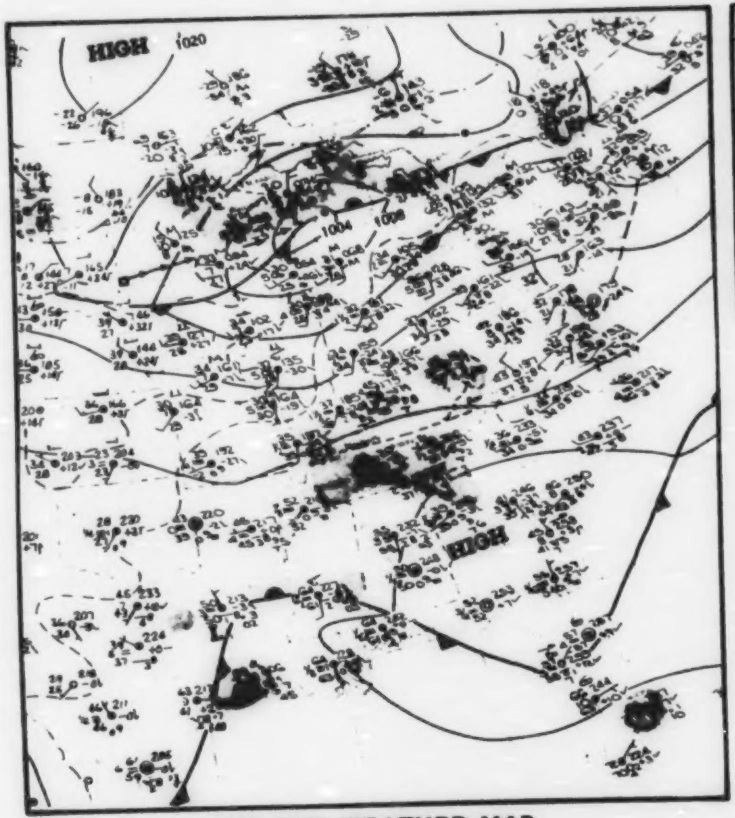
MAXIMUM-
MINIMUM
TEMPERATURE

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, JANUARY 14, 1974


HIGH
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1004
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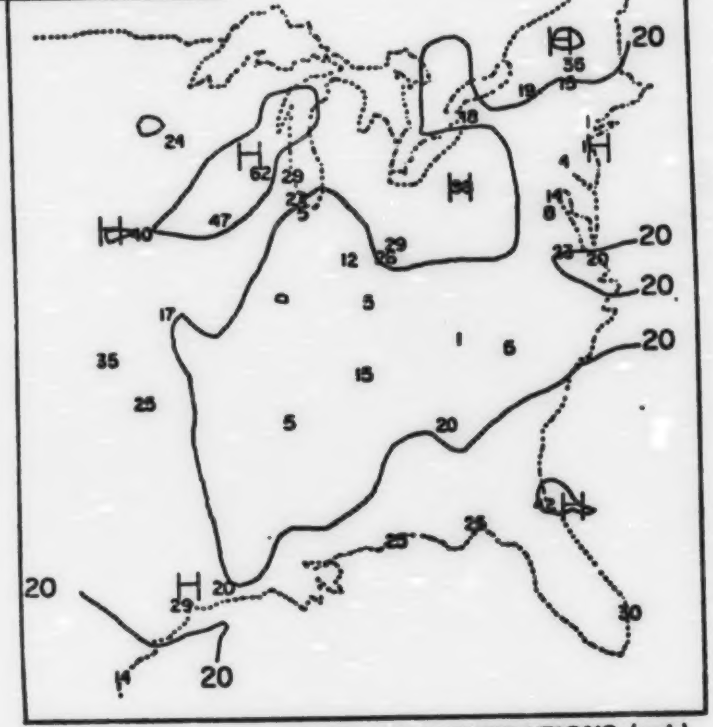
HIGH

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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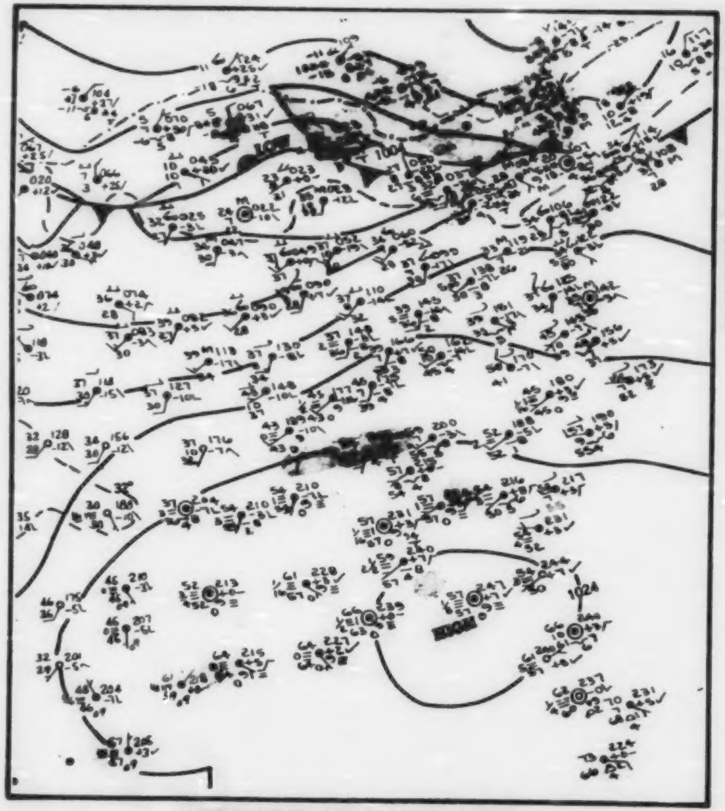
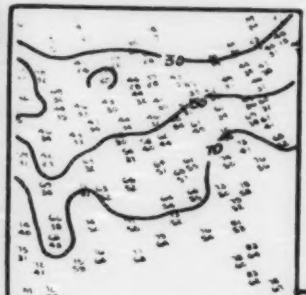
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

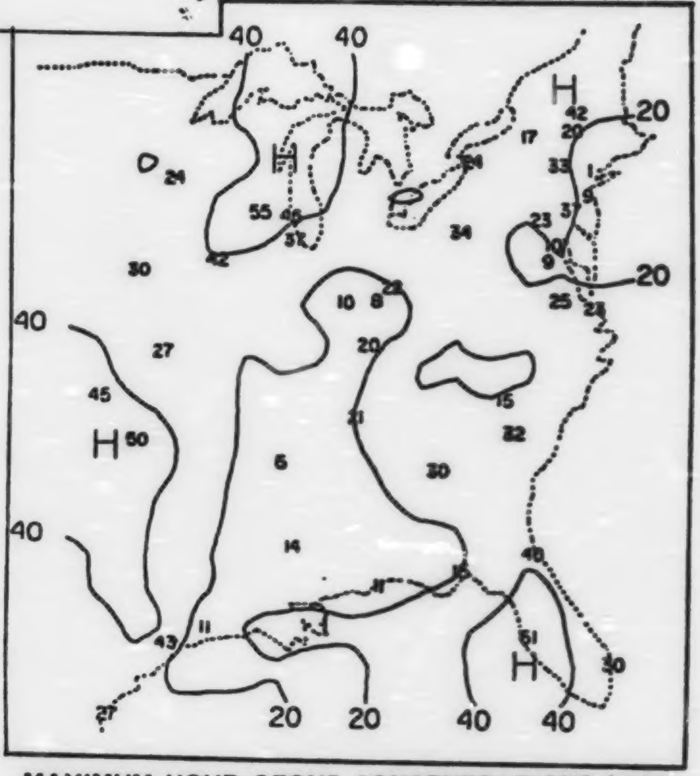
TUESDAY, JANUARY 15, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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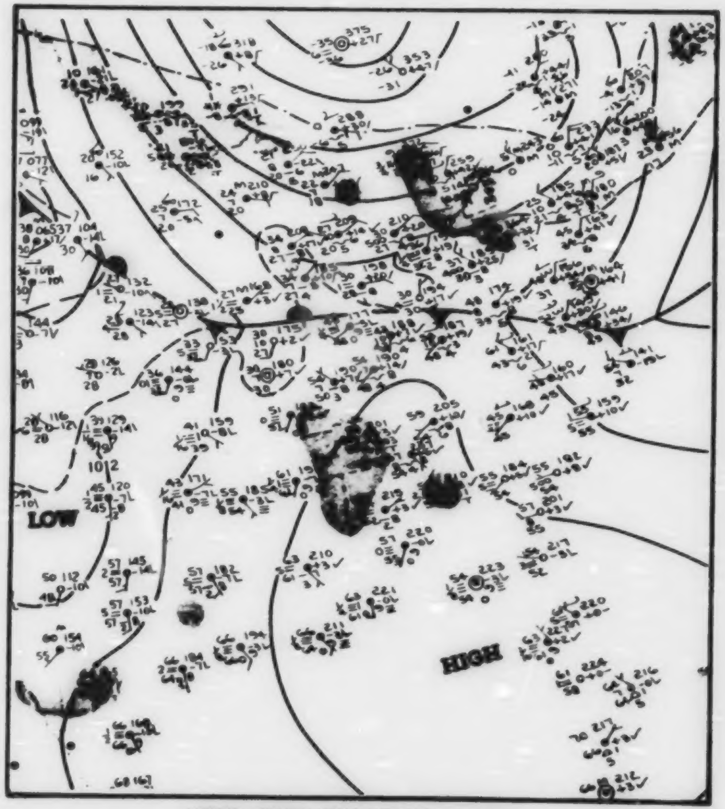
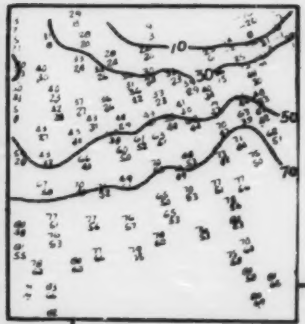
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

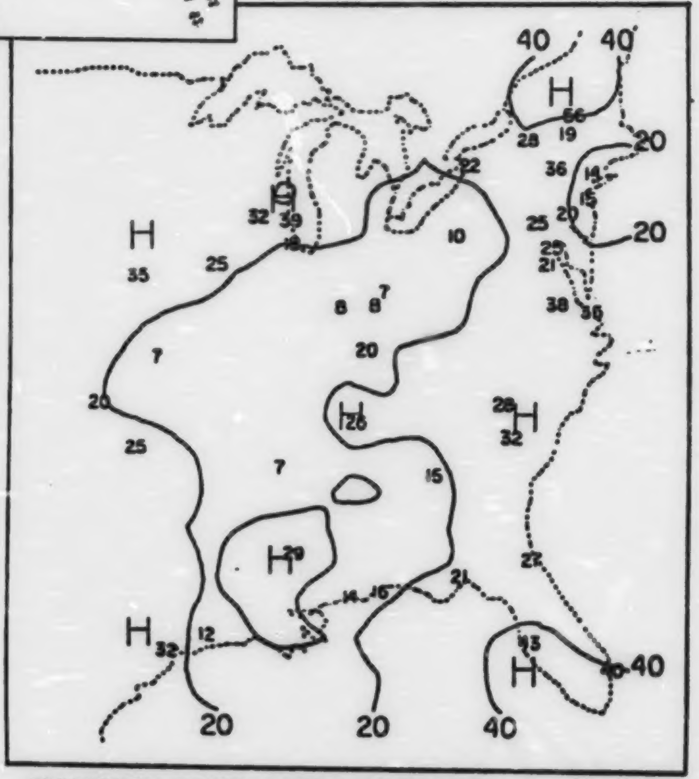
WEDNESDAY, JANUARY 16, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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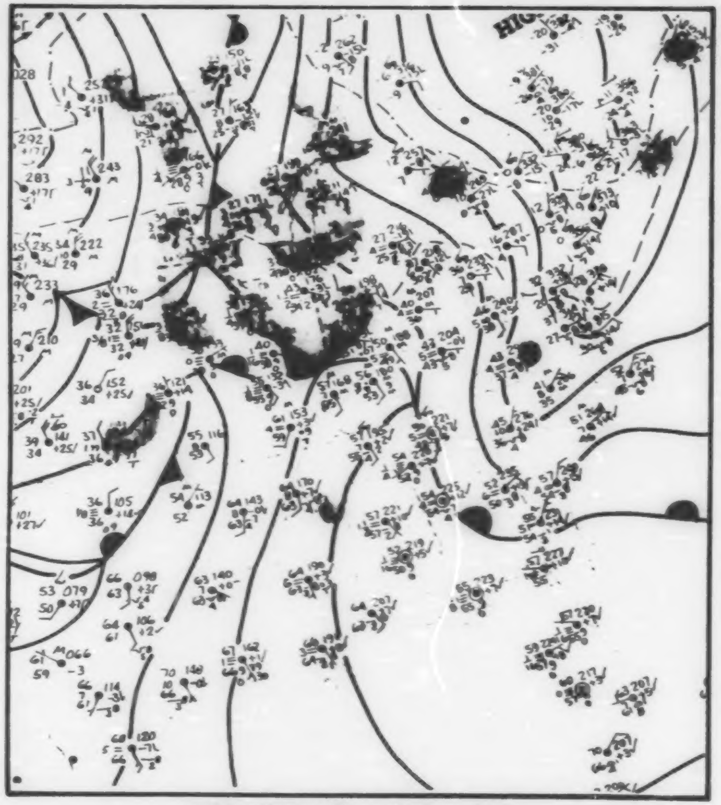
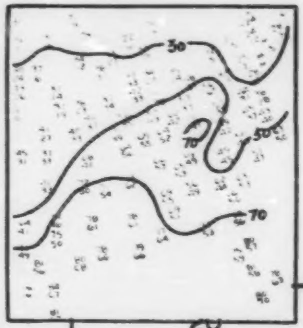
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

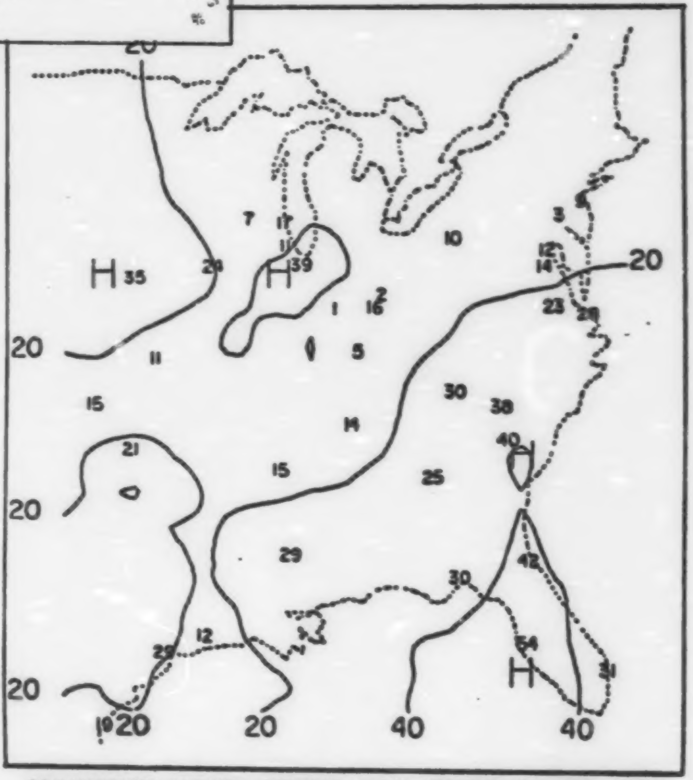
THURSDAY, JANUARY 17, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE



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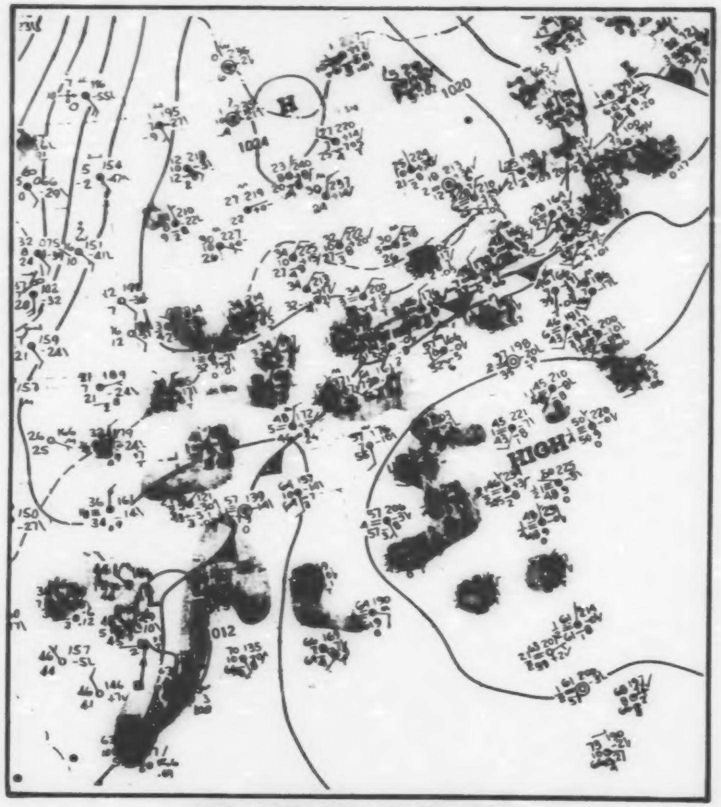
54
40

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, JANUARY 18, 1974


HIGH
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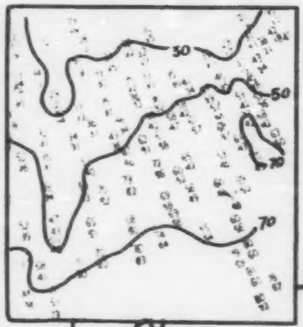
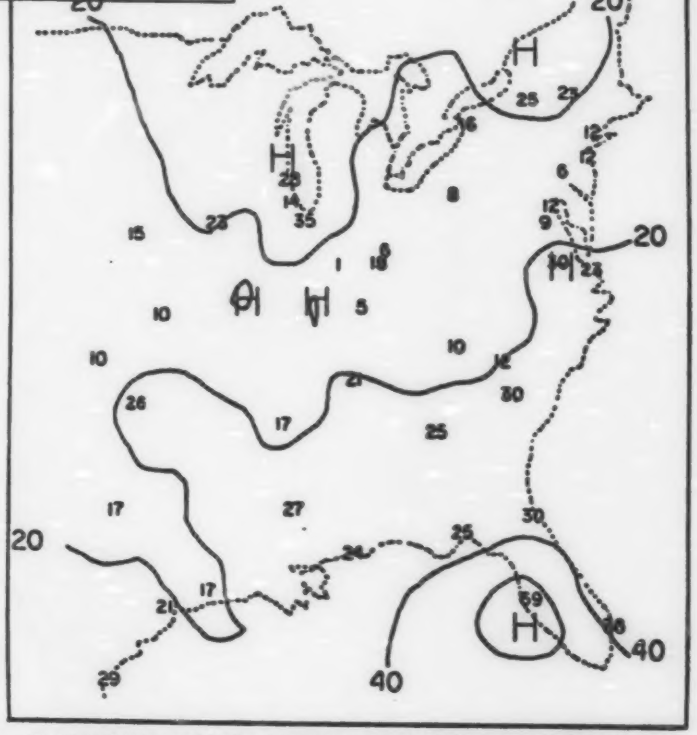
1020
1024

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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H
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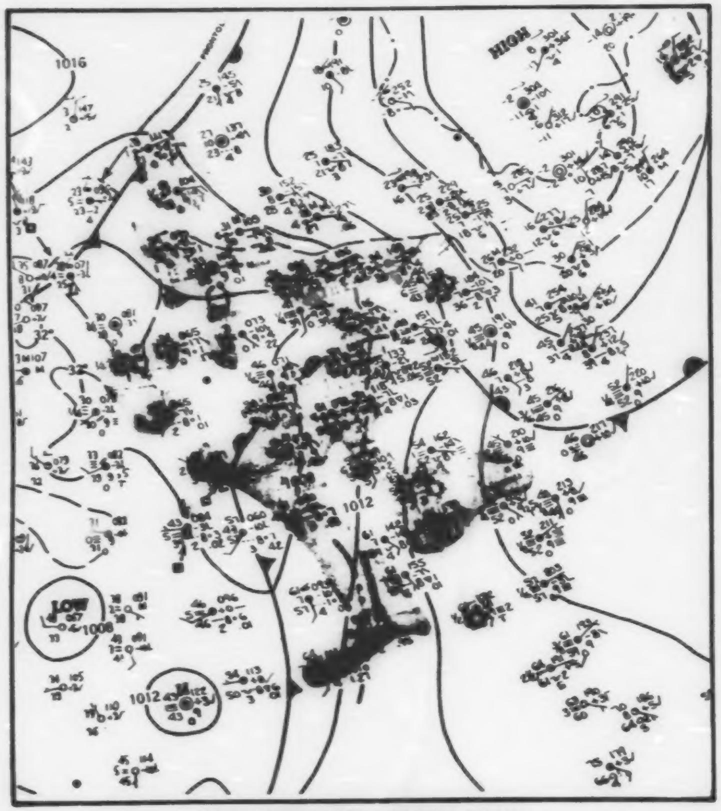
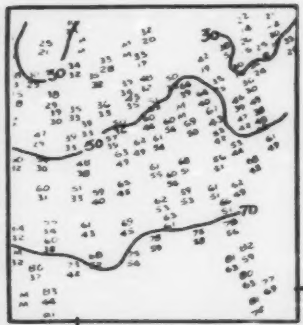
L
59

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

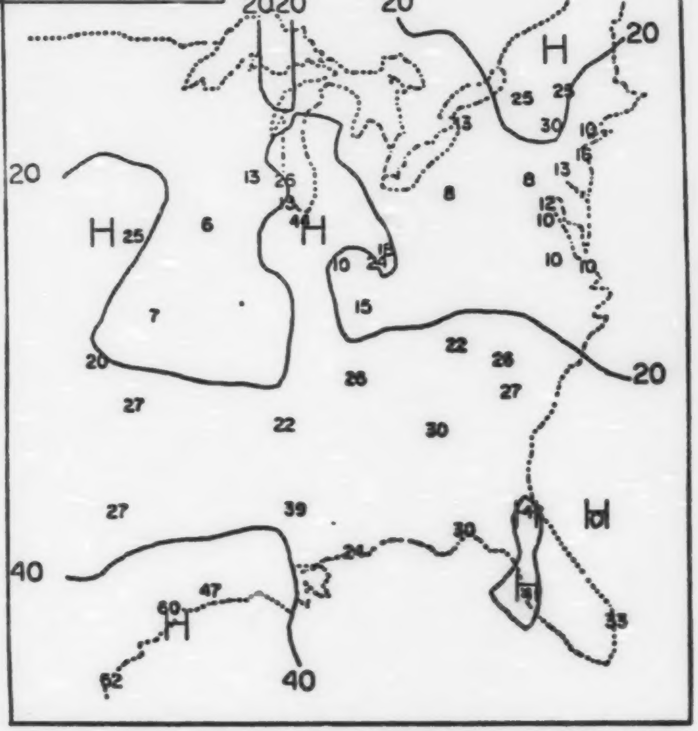
SATURDAY, JANUARY 19, 1974


1016
HIGH
LOW
1008
1012

1200 GMT WEATHER MAP

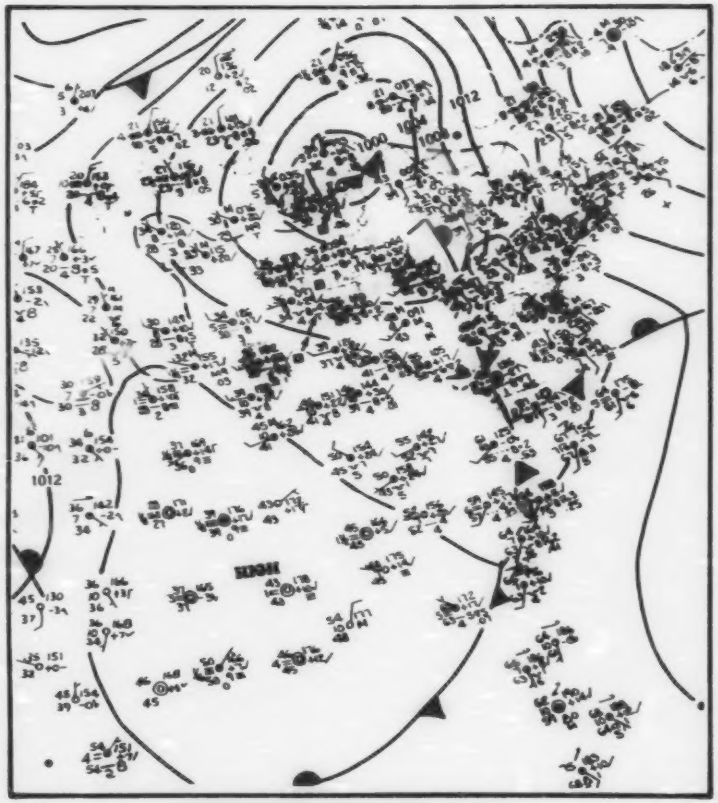


MAXIMUM-
MINIMUM
TEMPERATURE



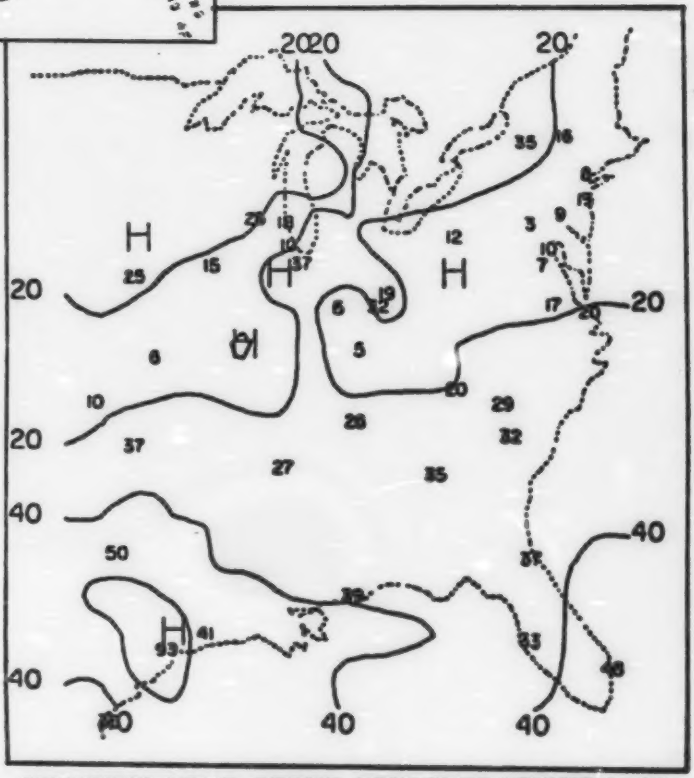
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, JANUARY 20, 1974


1012
1008
1004
1000
1012
HIGH

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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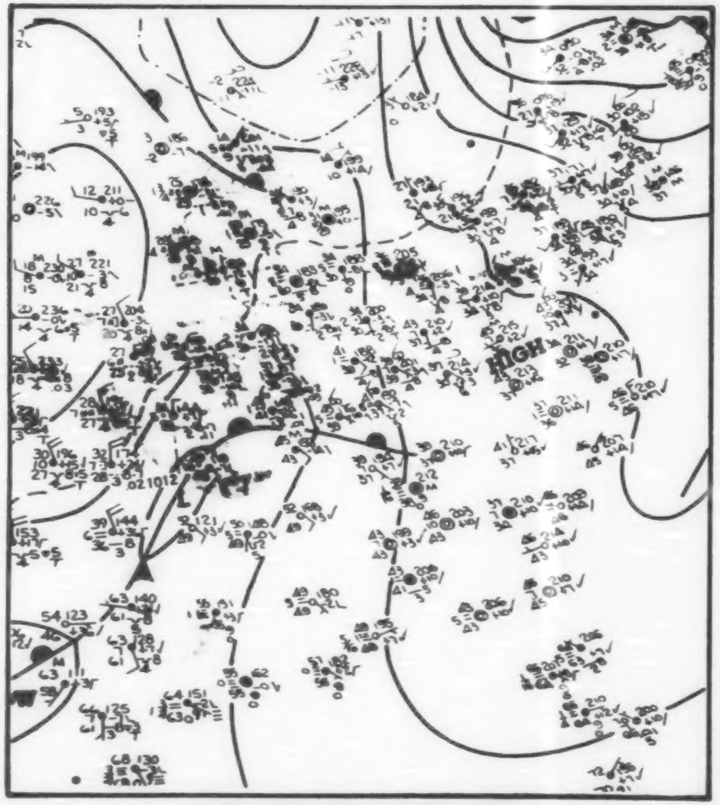
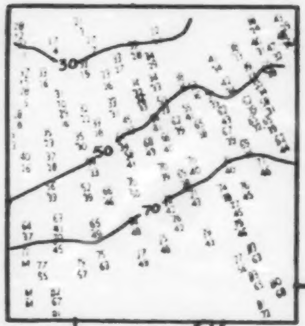
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

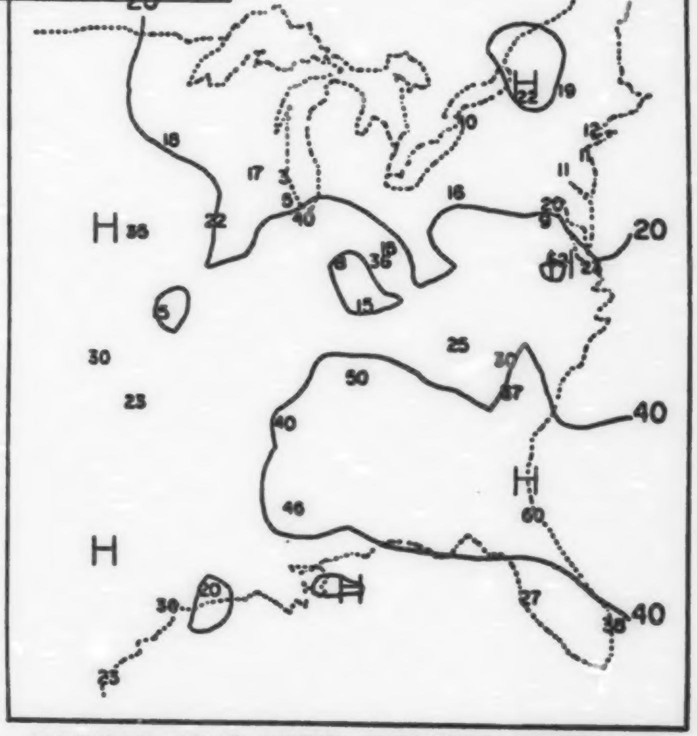
MONDAY, JANUARY 21, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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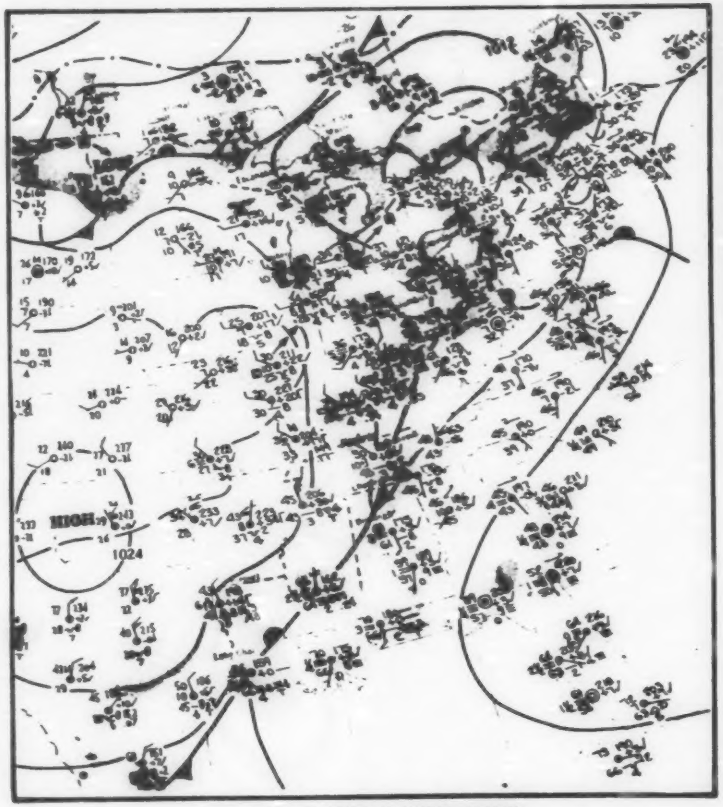
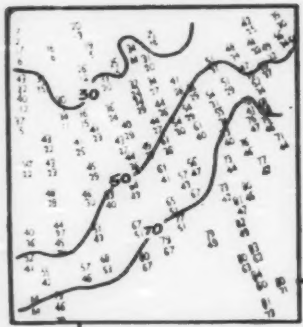
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

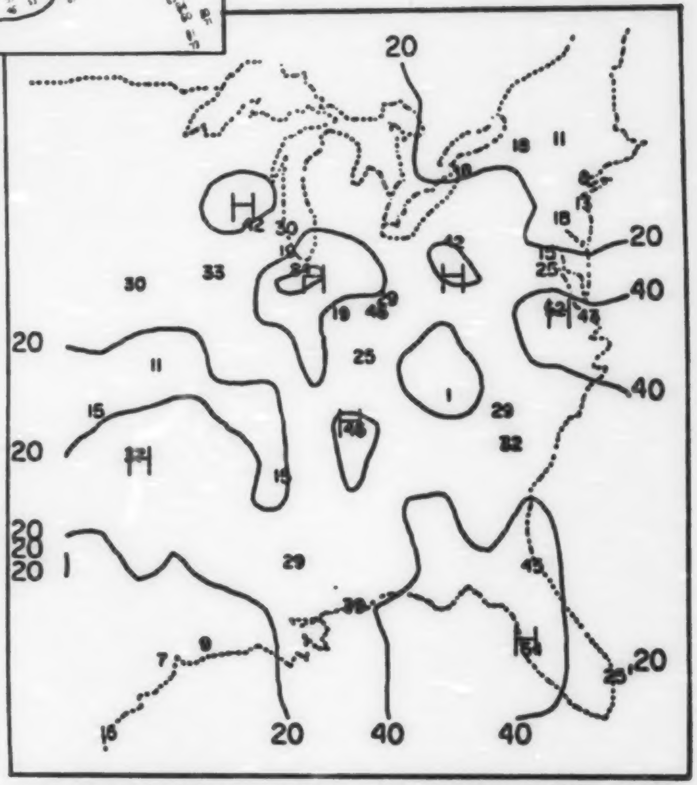
TUESDAY, JANUARY 22, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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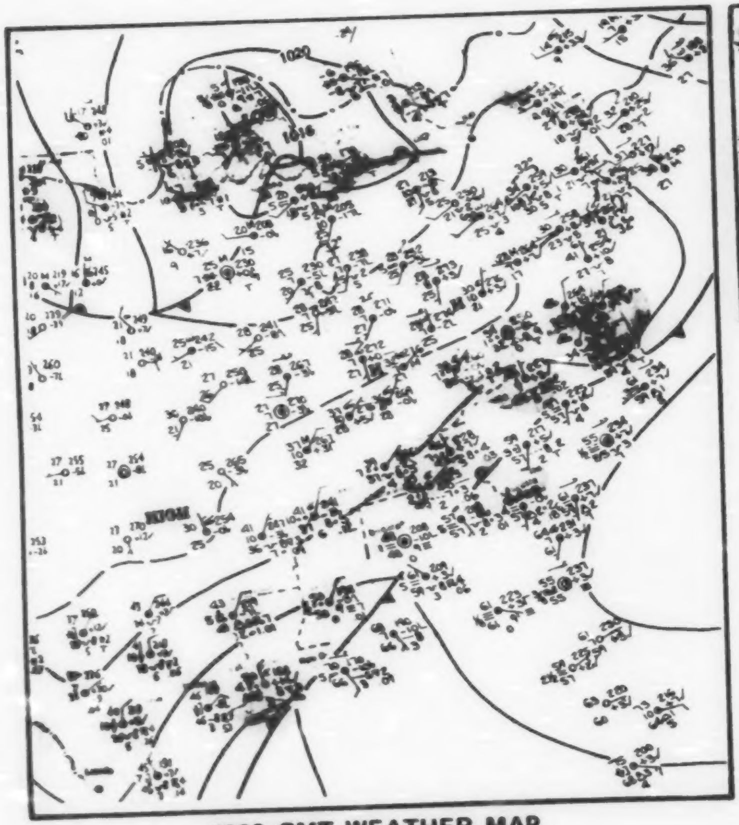
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, JANUARY 23, 1974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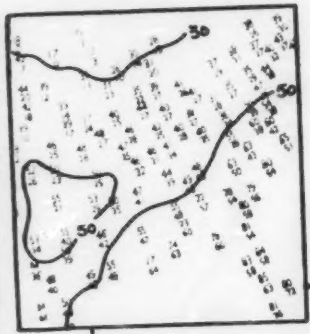
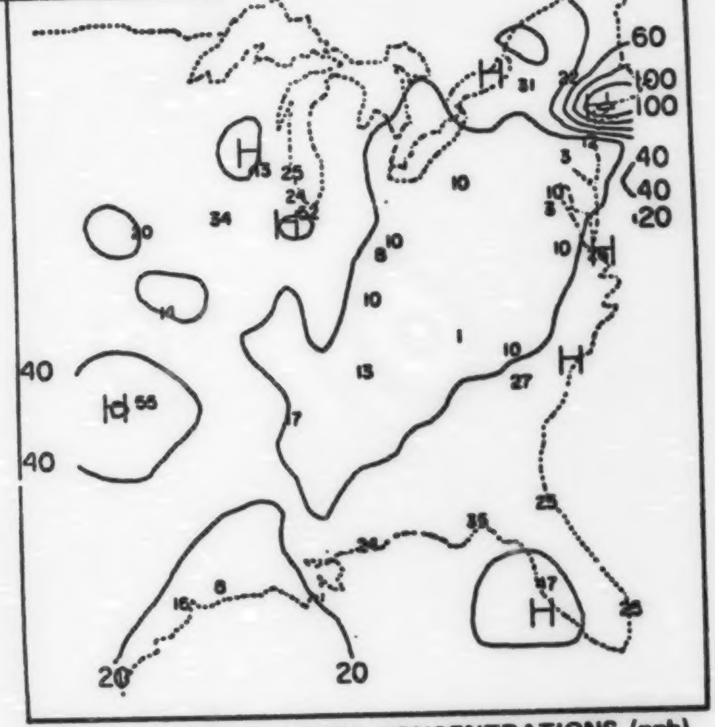
1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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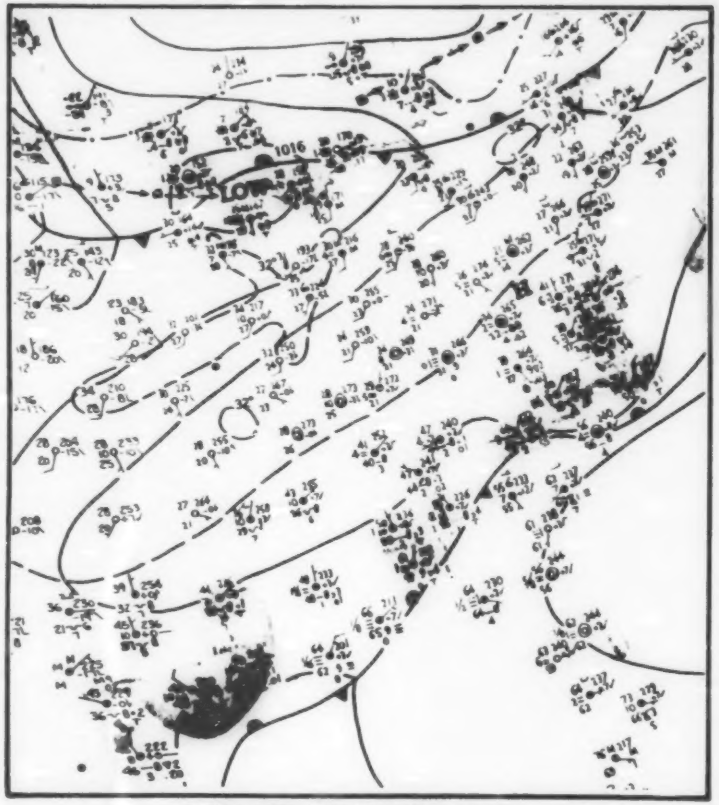
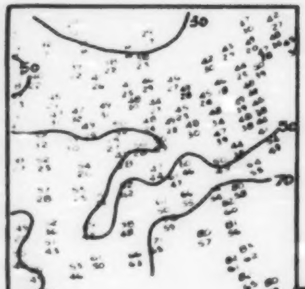
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

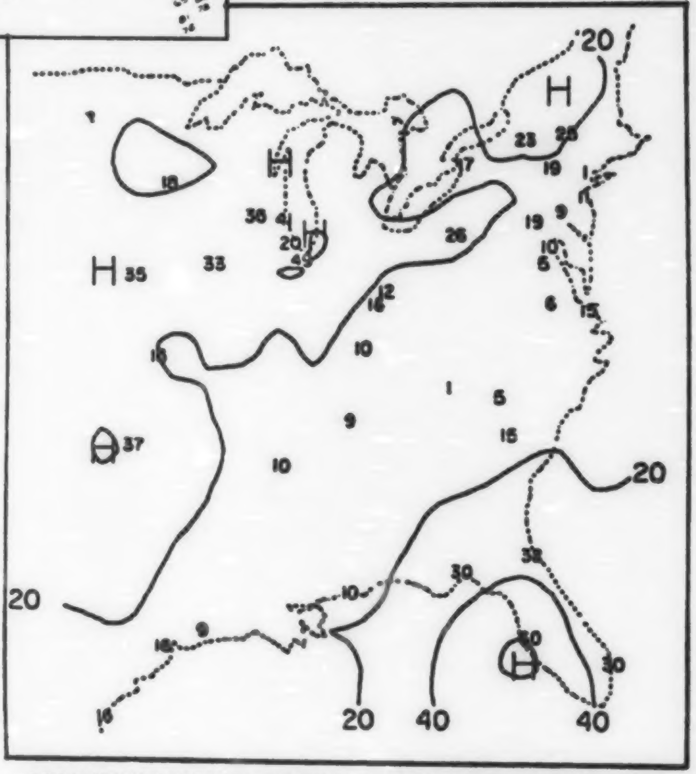
THURSDAY, JANUARY 24, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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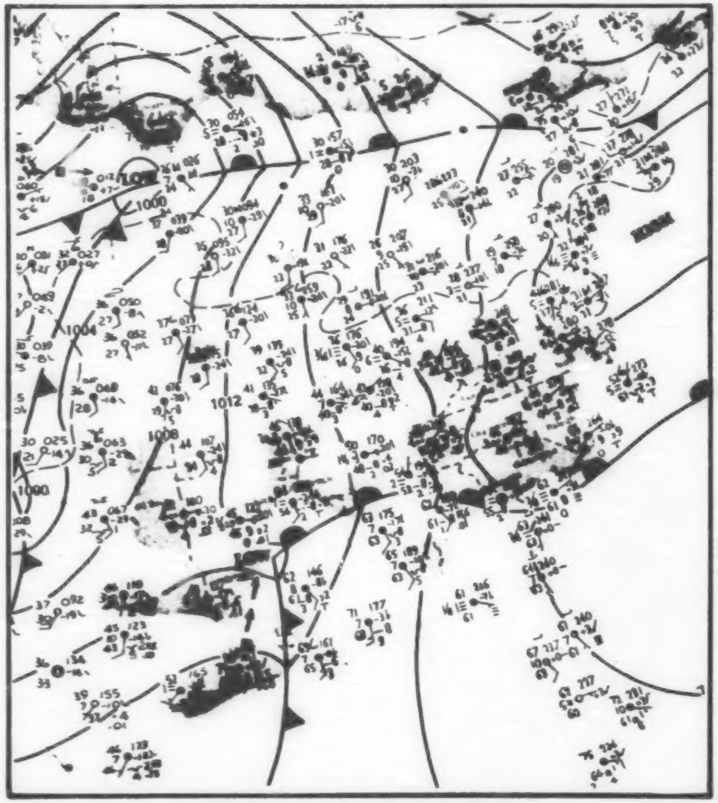
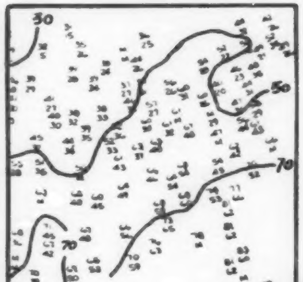
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

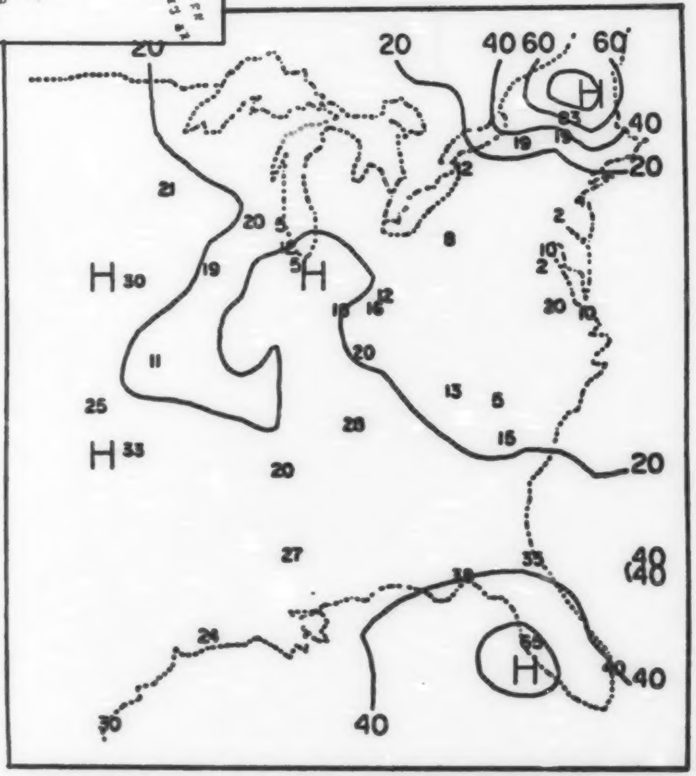
FRIDAY, JANUARY 25, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE



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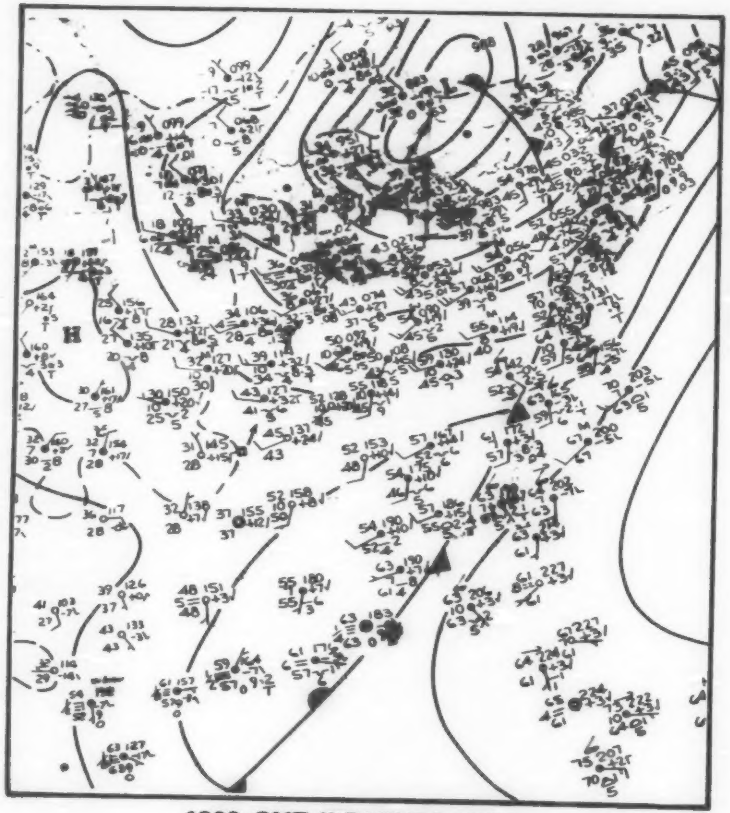
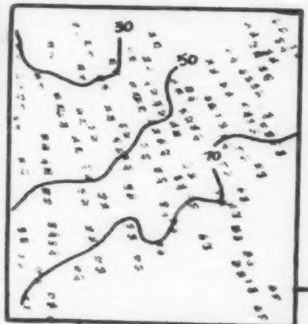
SATURDAY, JANUARY 26, 1974

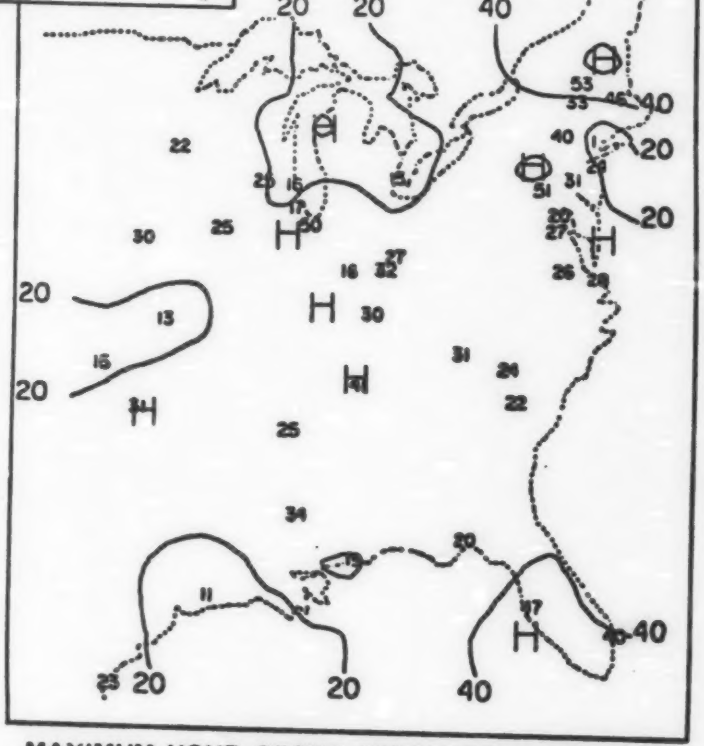
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)



1200 GMT WEATHER MAP

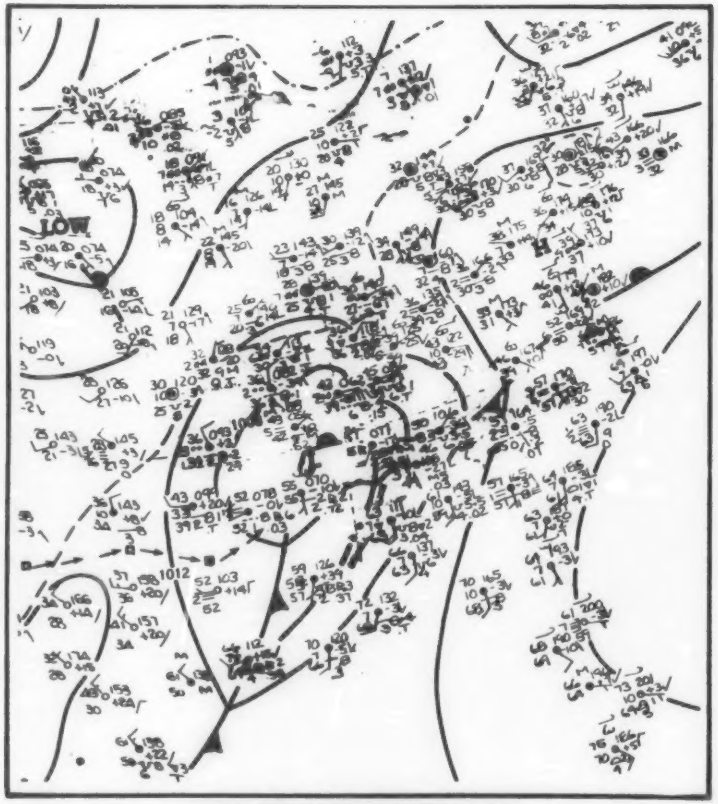


MAXIMUM-
MINIMUM
TEMPERATURE

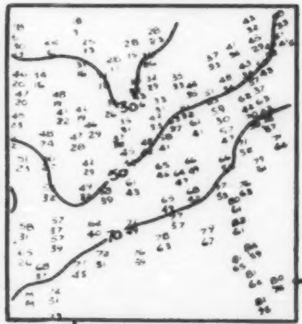


MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, JANUARY 27, 1974



1200 GMT WEATHER MAP



MAXIMUM-
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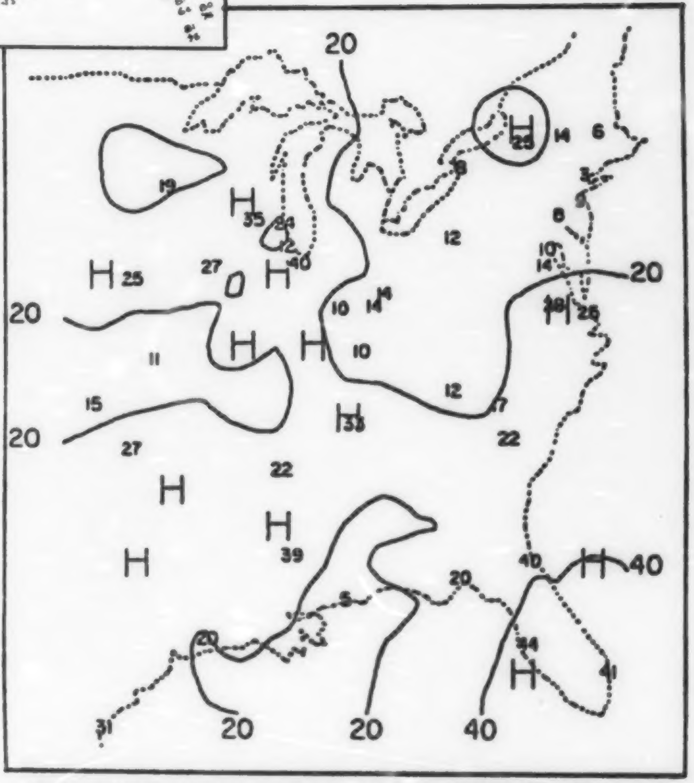
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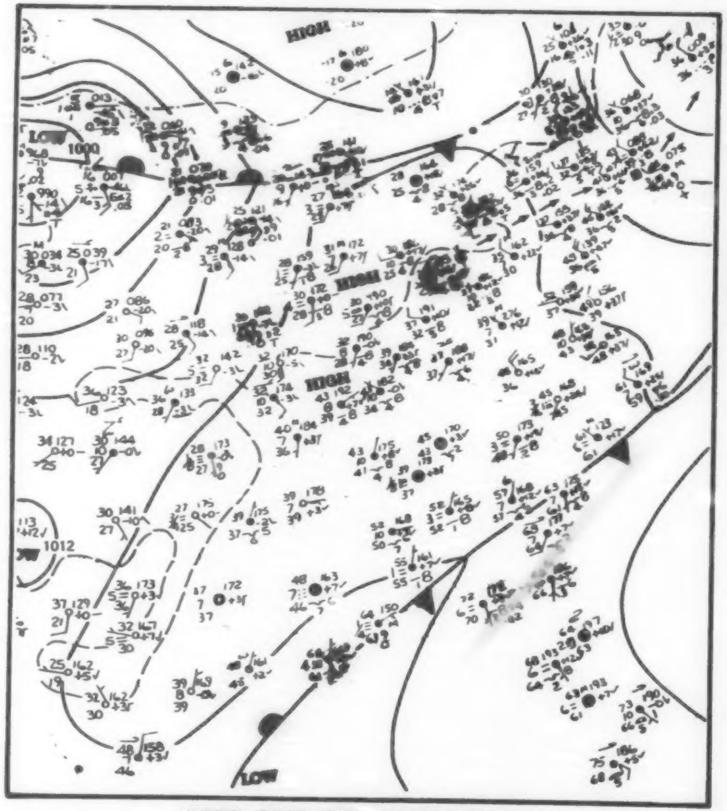
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, JANUARY 28, 1974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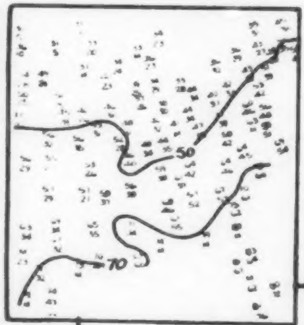
1200 GMT WEATHER MAP



MAXIMUM-
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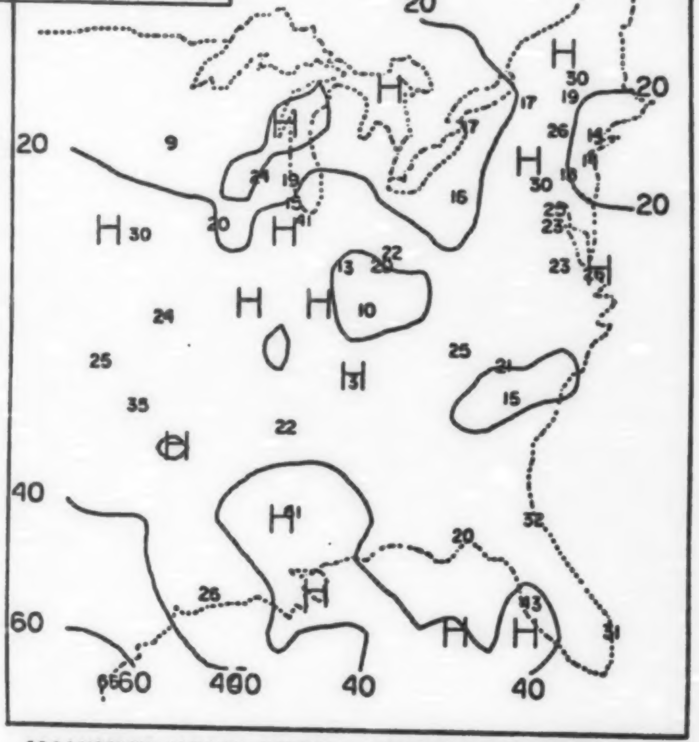
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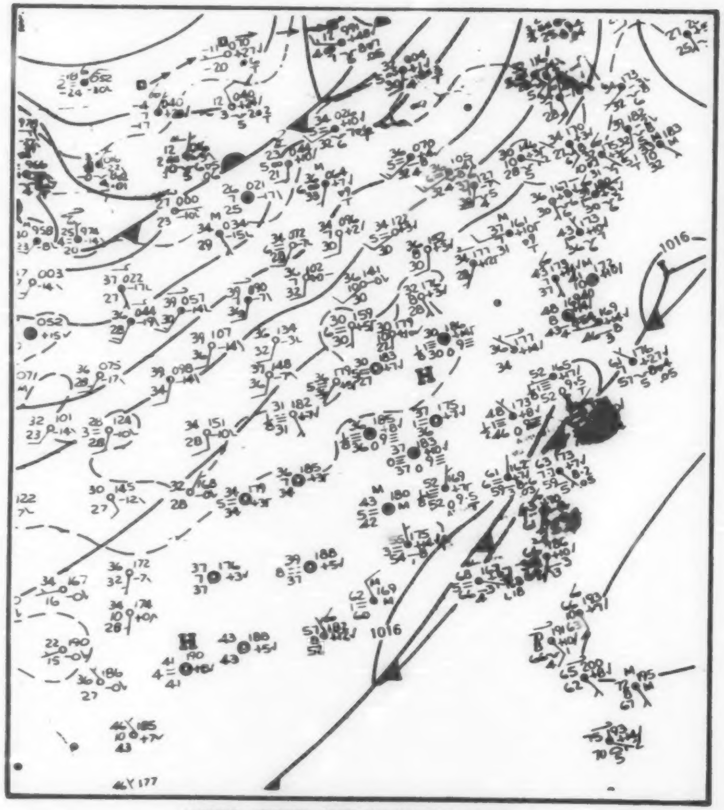
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, JANUARY 29, 1974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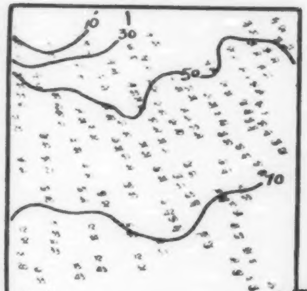
1200 GMT WEATHER MAP



MAXIMUM-
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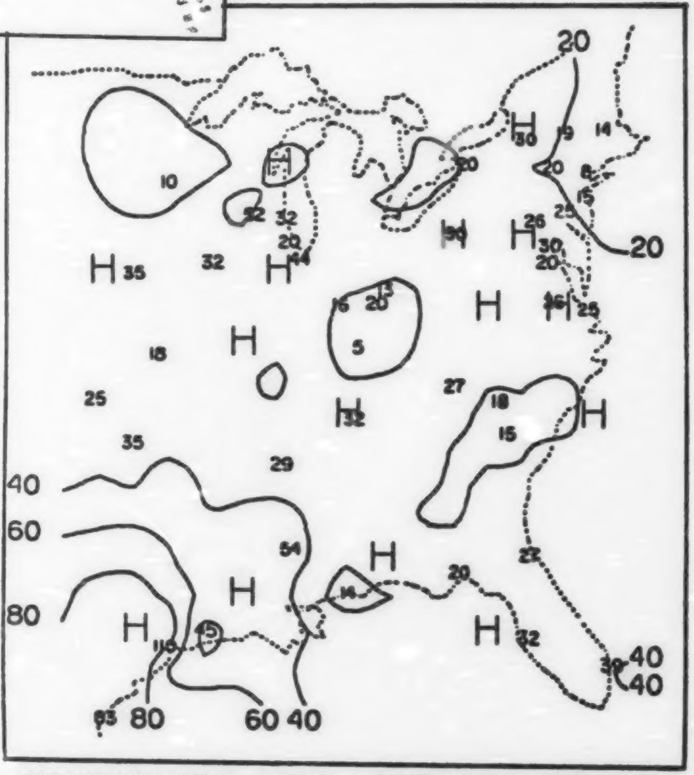
TEMPERATURE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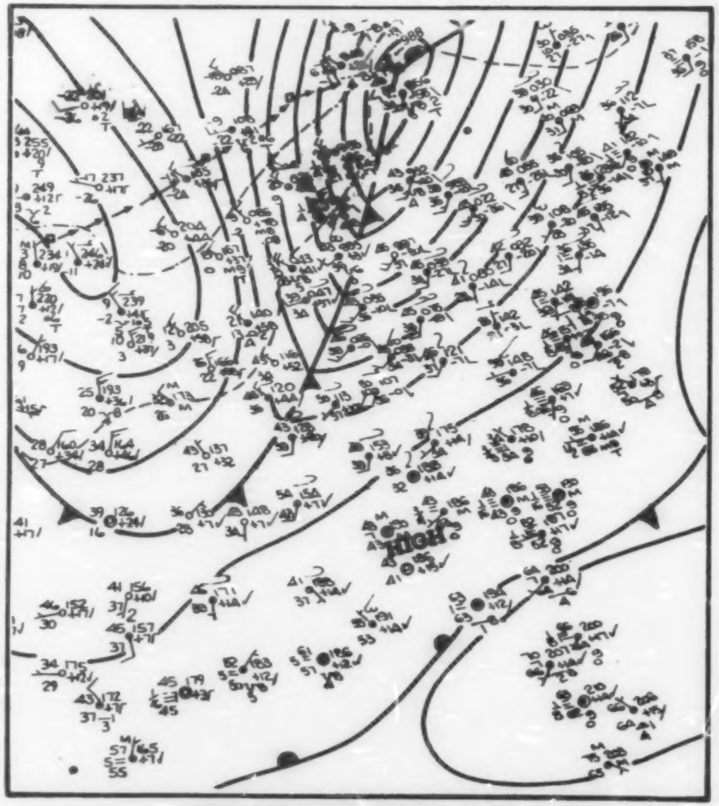
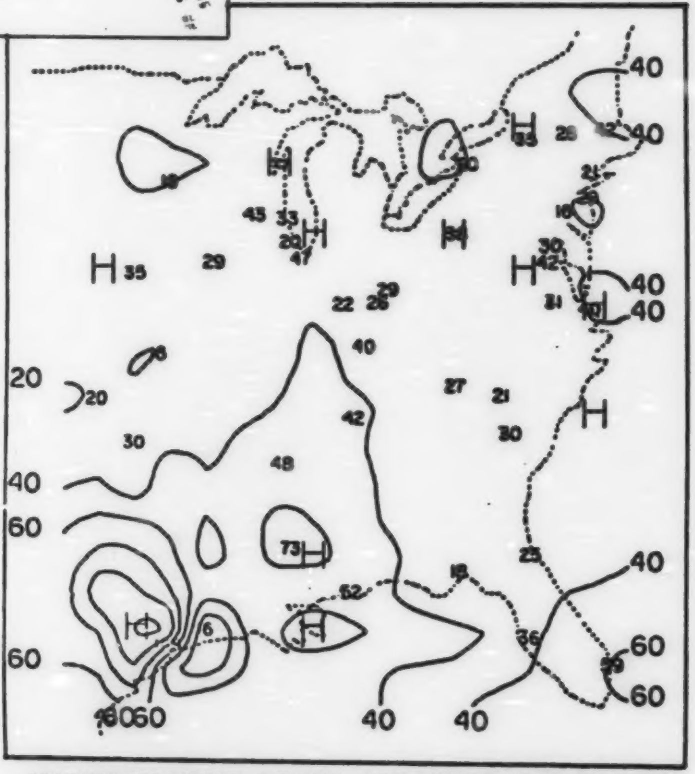
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, JANUARY 30, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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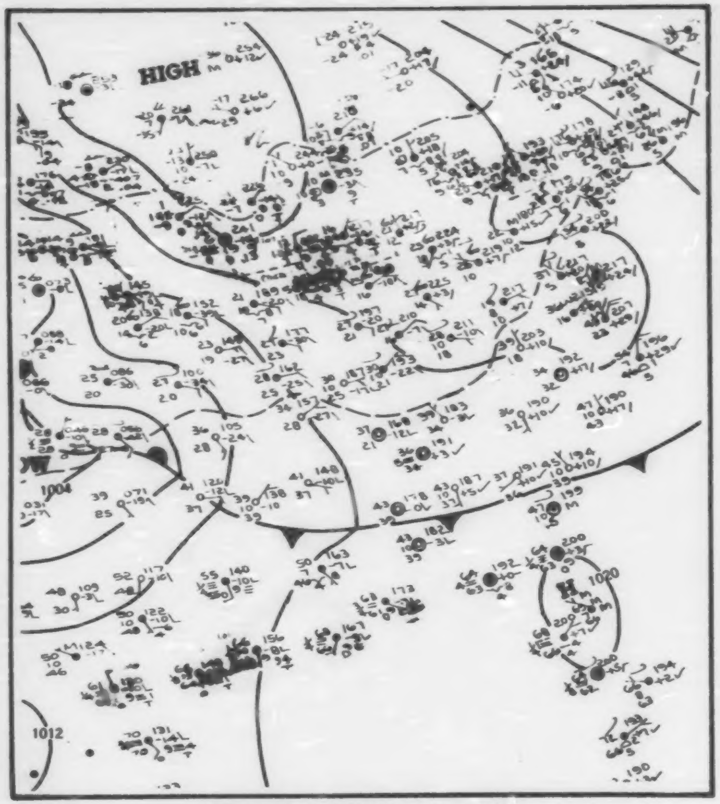
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, JANUARY 31, 1974


HIGH
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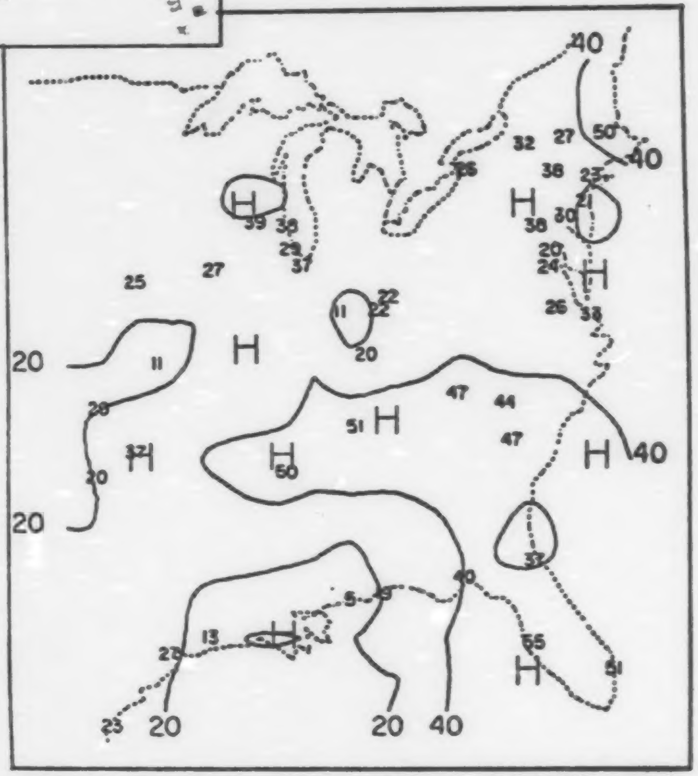
1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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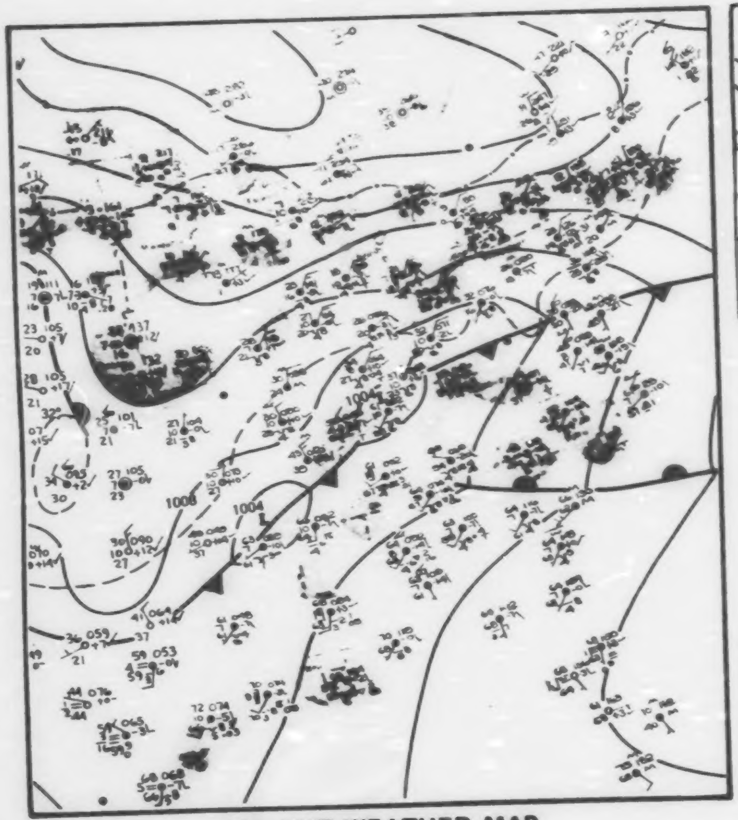
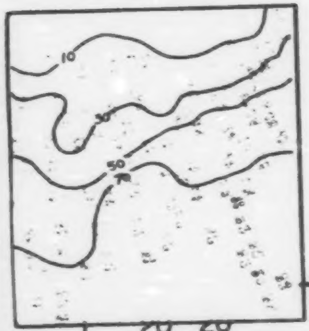
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, FEBRUARY 1, 1974



1200 GMT WEATHER MAP



MAXIMUM-
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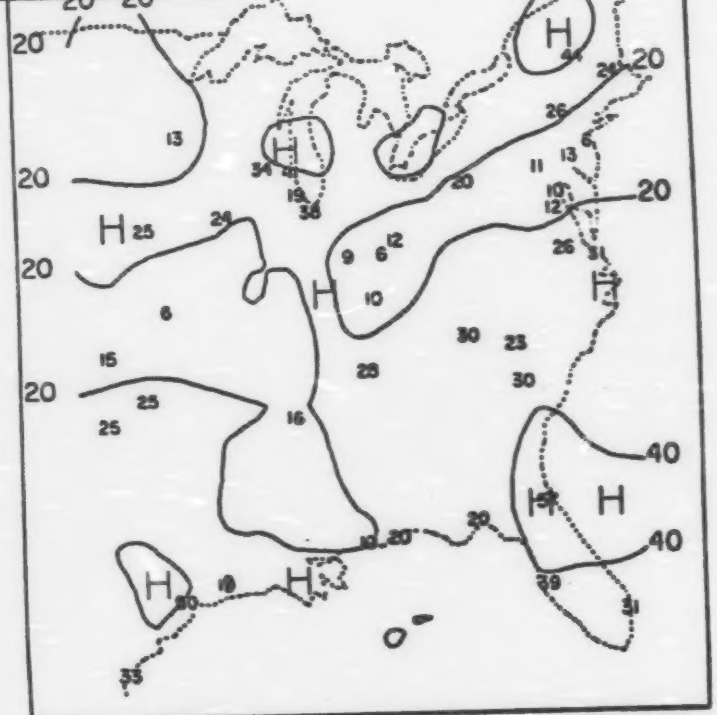
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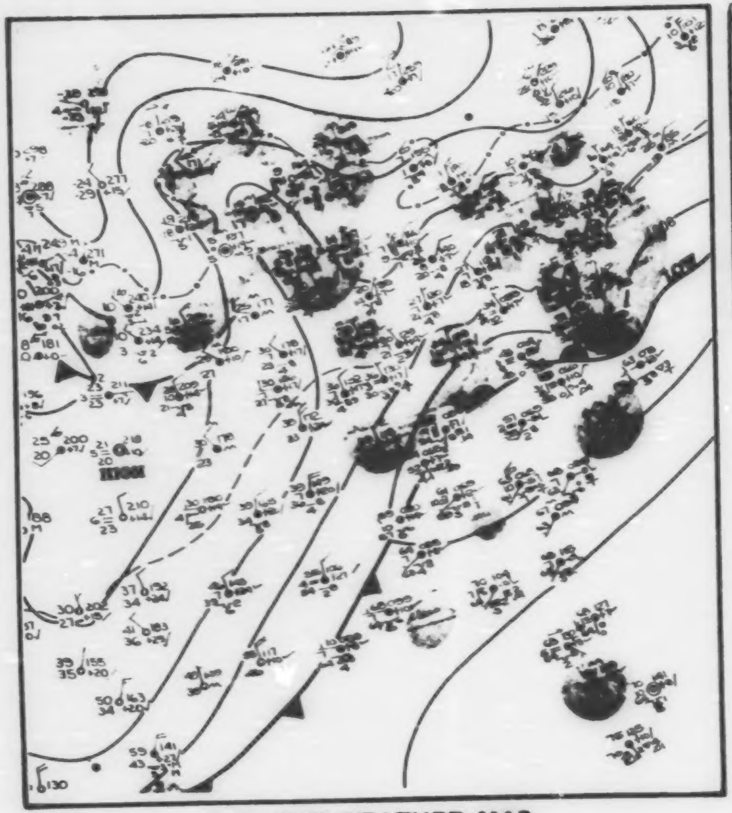
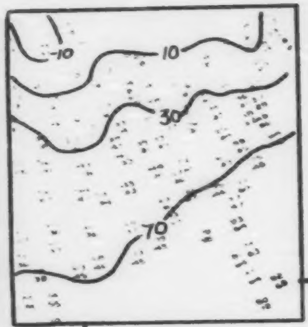
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

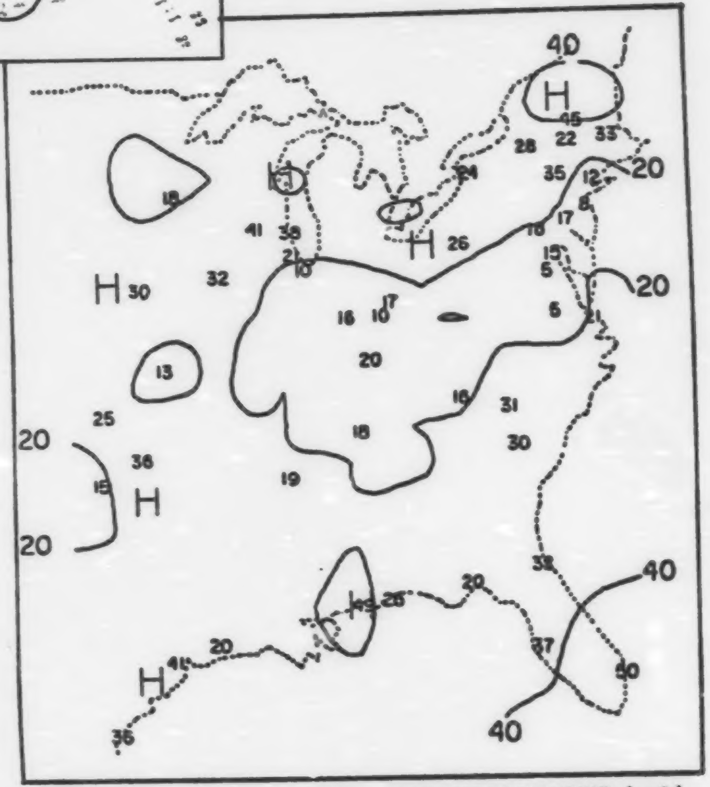
SATURDAY, FEBRUARY 2, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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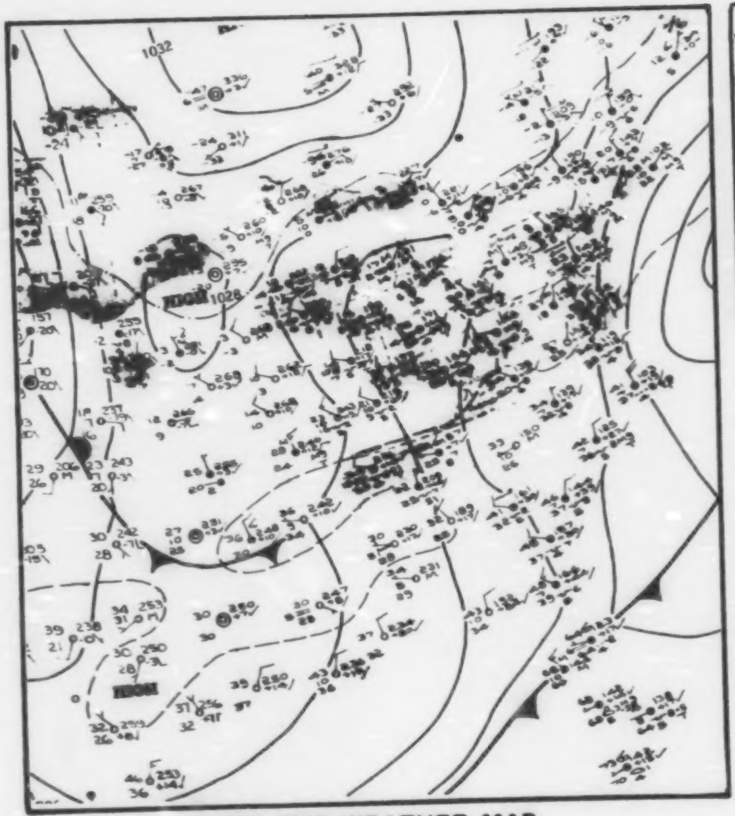
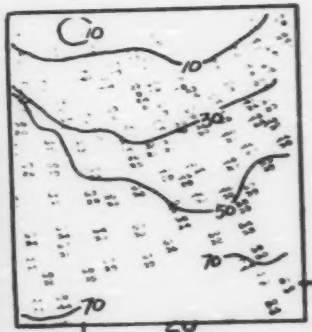
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, FEBRUARY 3, 1974



1200 GMT WEATHER MAP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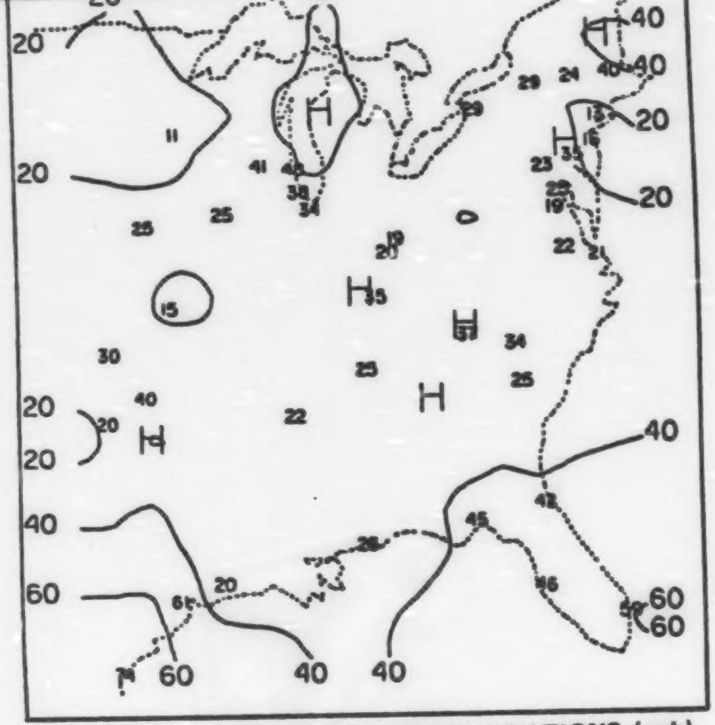
MAXIMUM-
MINIMUM
TEMPERATURE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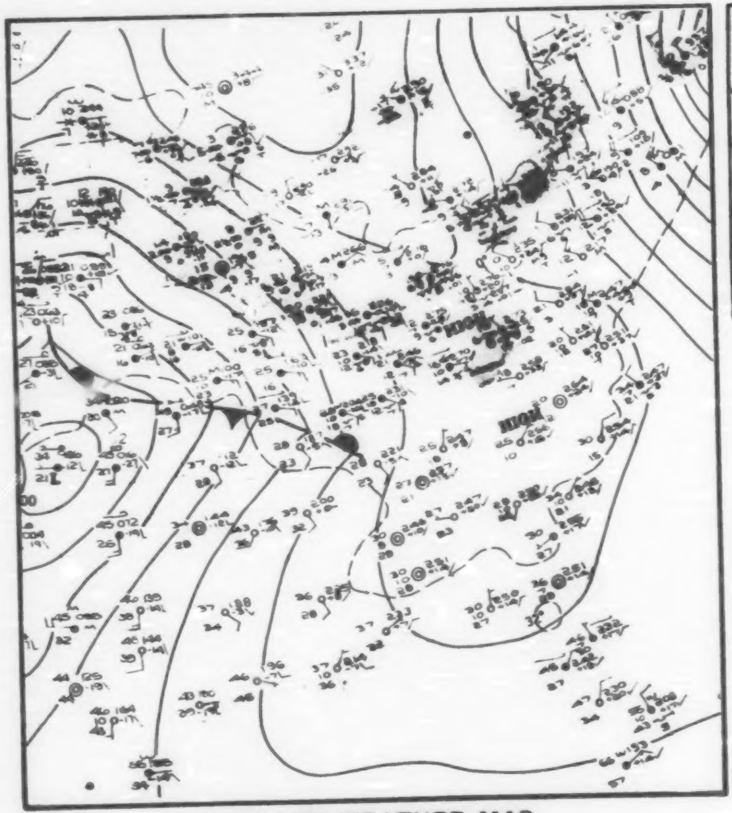
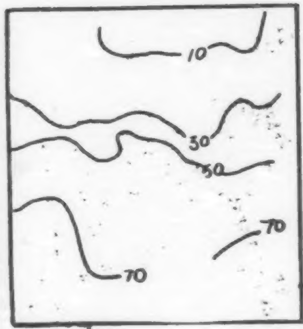
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, FEBRUARY 4, 1974



1200 GMT WEATHER MAP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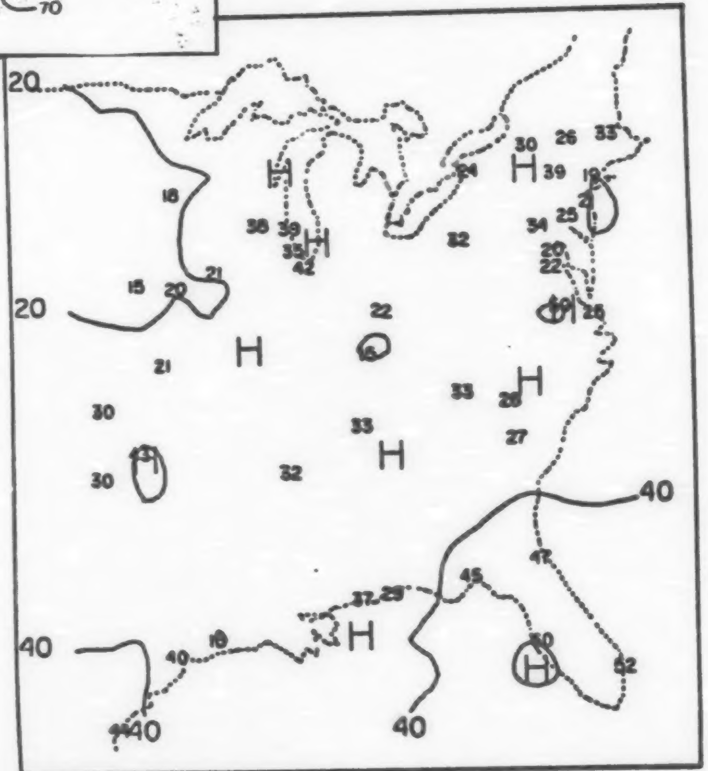
MAXIMUM-
MINIMUM
TEMPERATURE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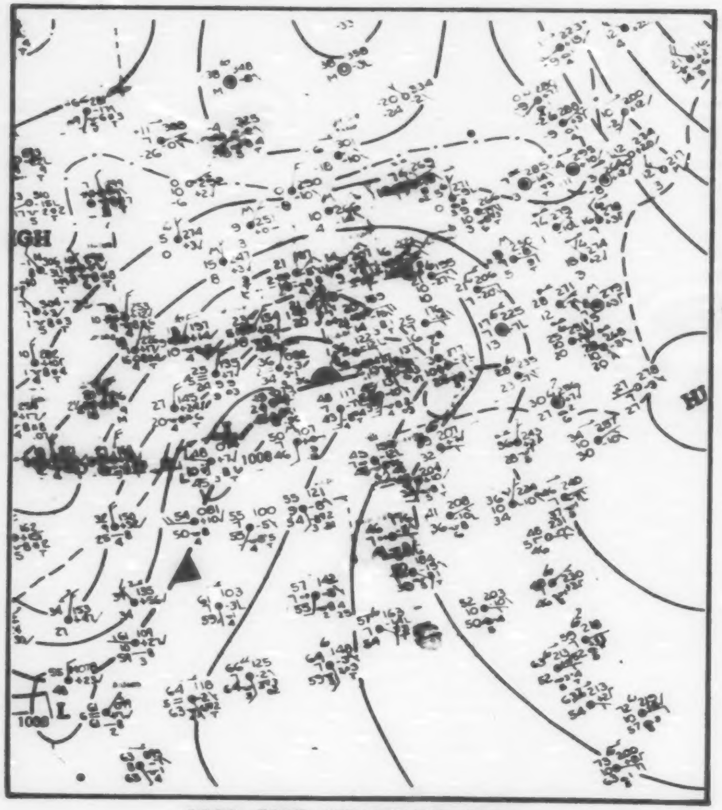
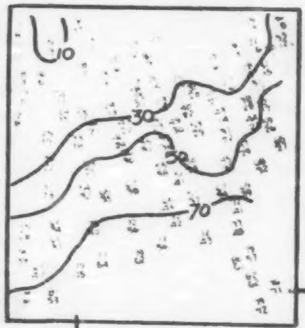
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

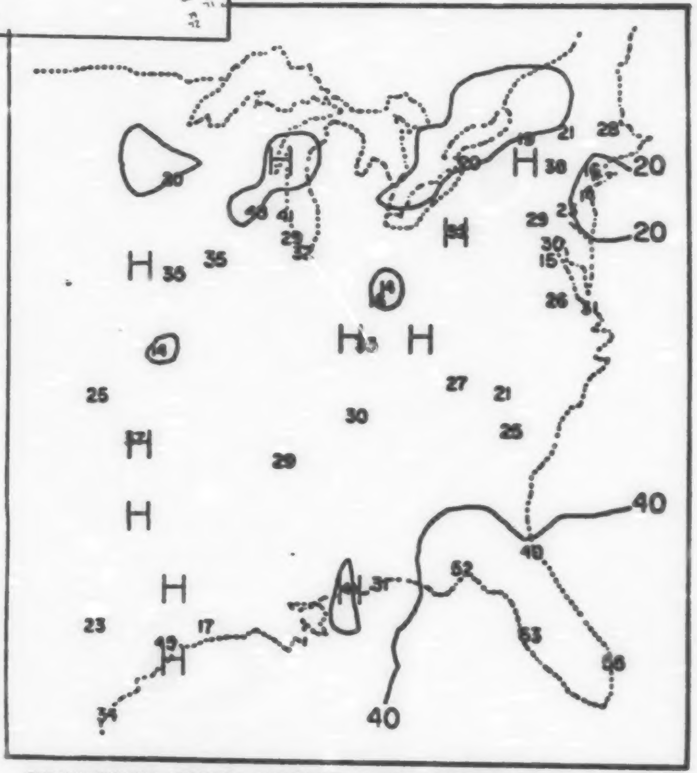
TUESDAY, FEBRUARY 5, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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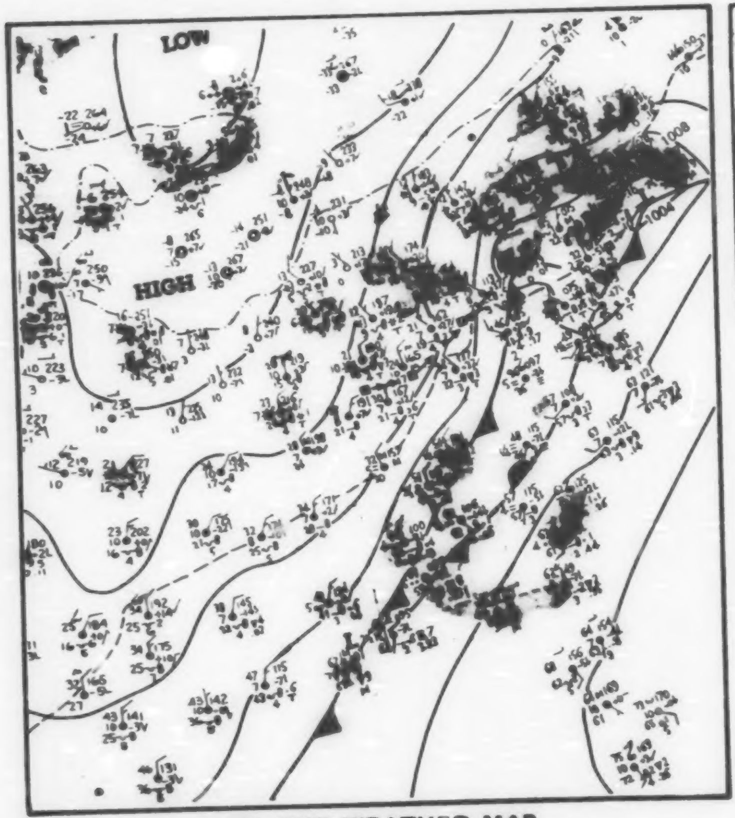
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, FEBRUARY 6, 1974


LOW
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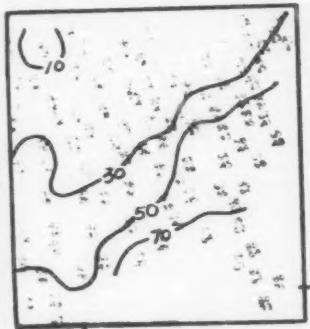
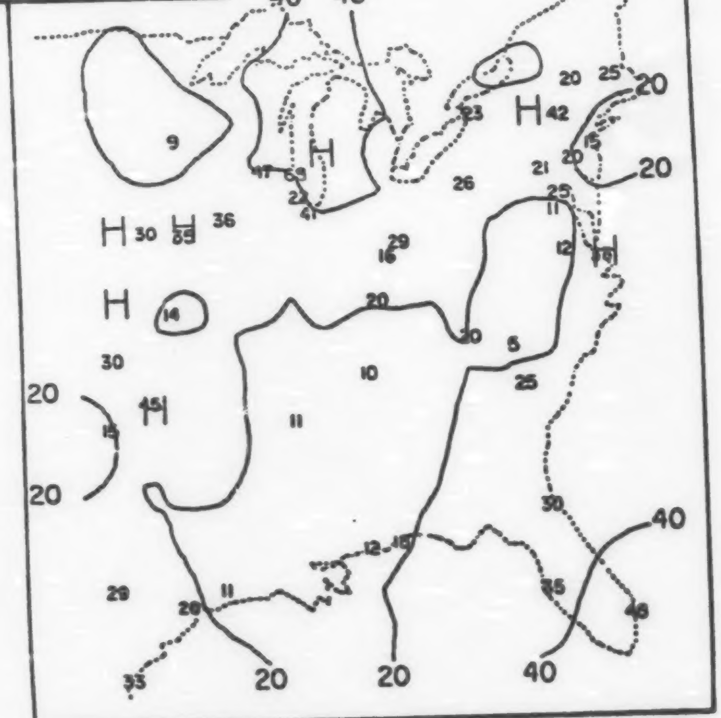
1008
1004

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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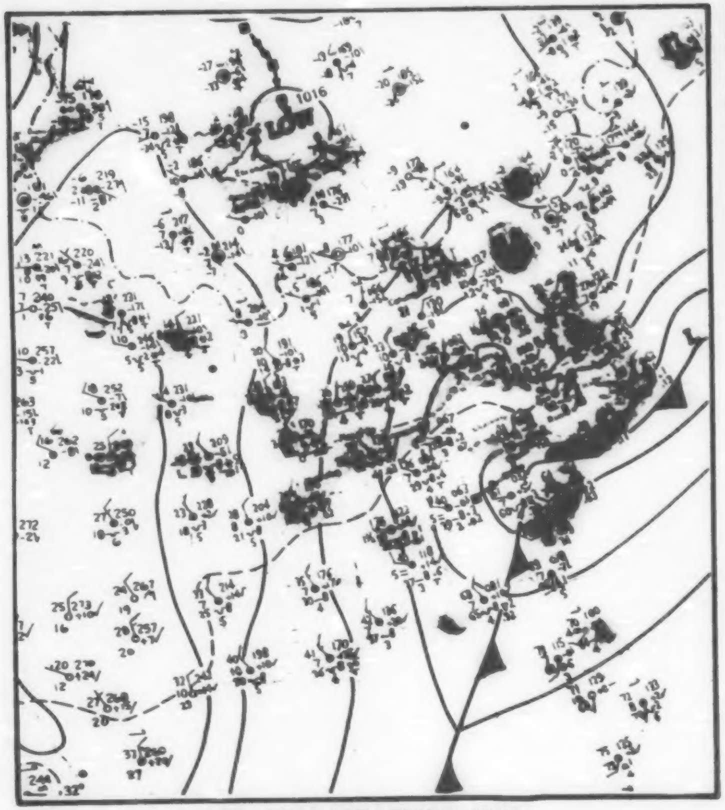
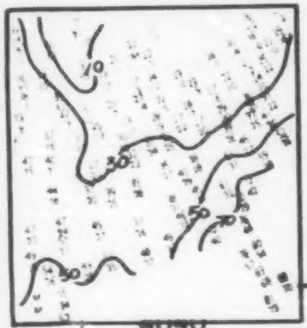
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, FEBRUARY 7, 1974



1200 GMT WEATHER MAP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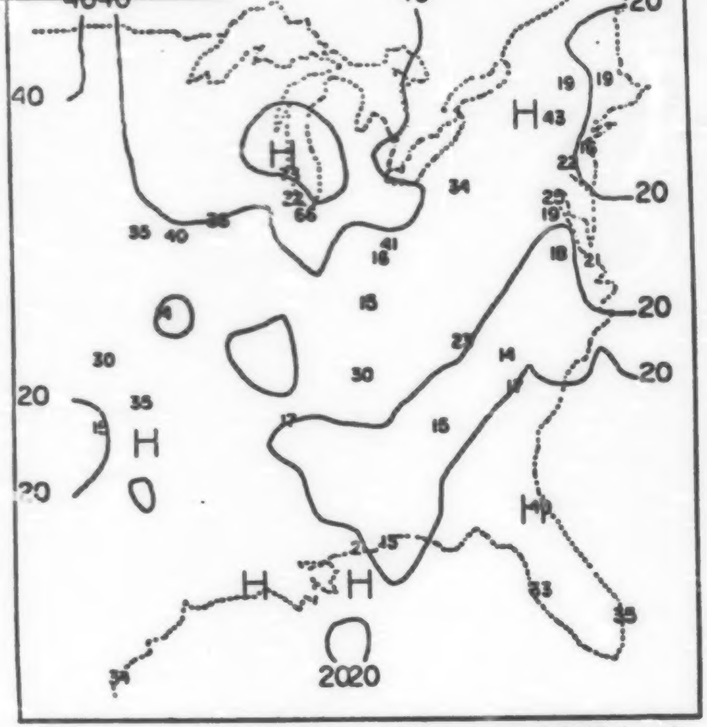
MAXIMUM-
MINIMUM
TEMPERATURE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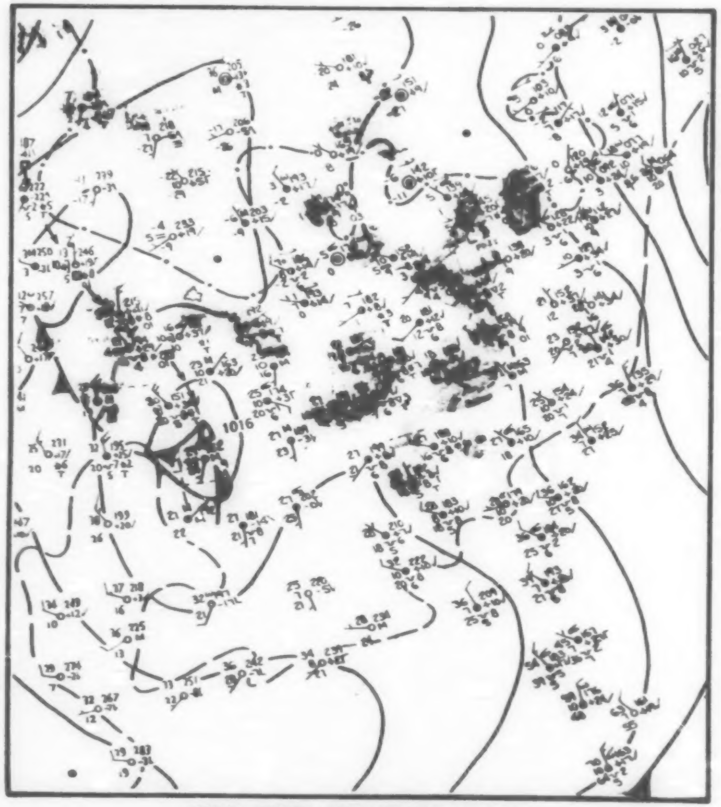
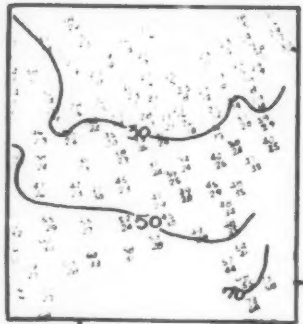
2020

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

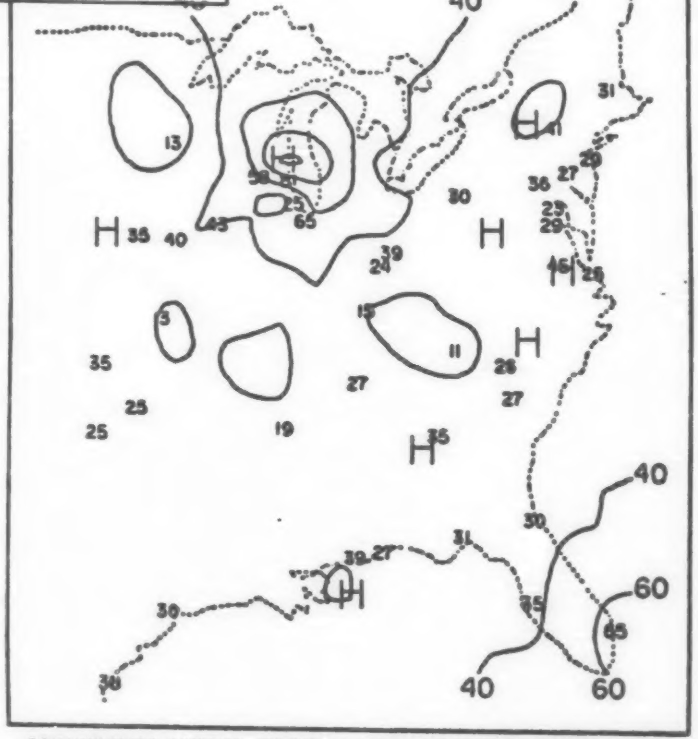
FRIDAY, FEBRUARY 8, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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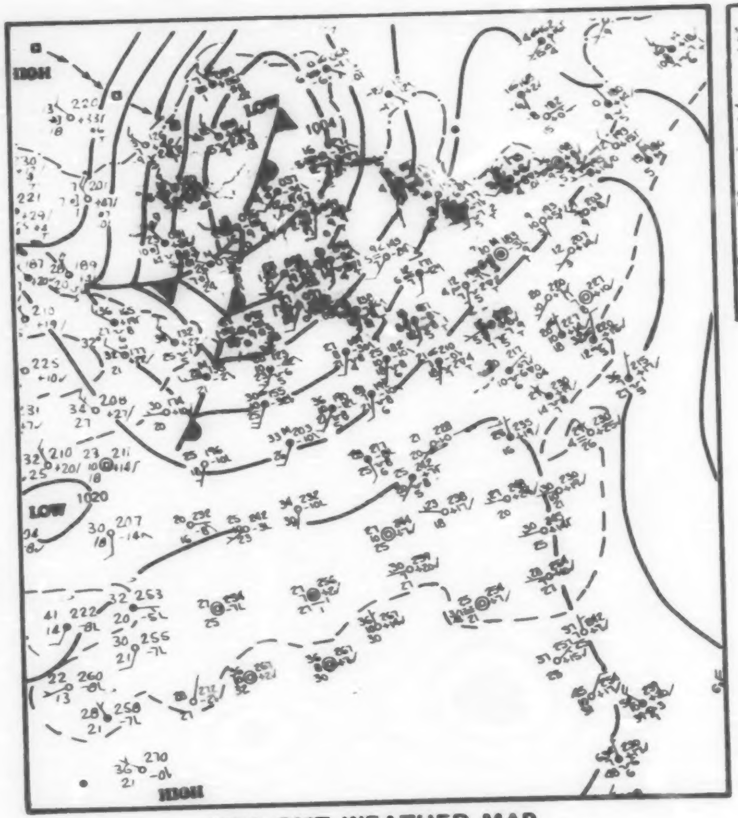
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, FEBRUARY 9, 1974


HIGH
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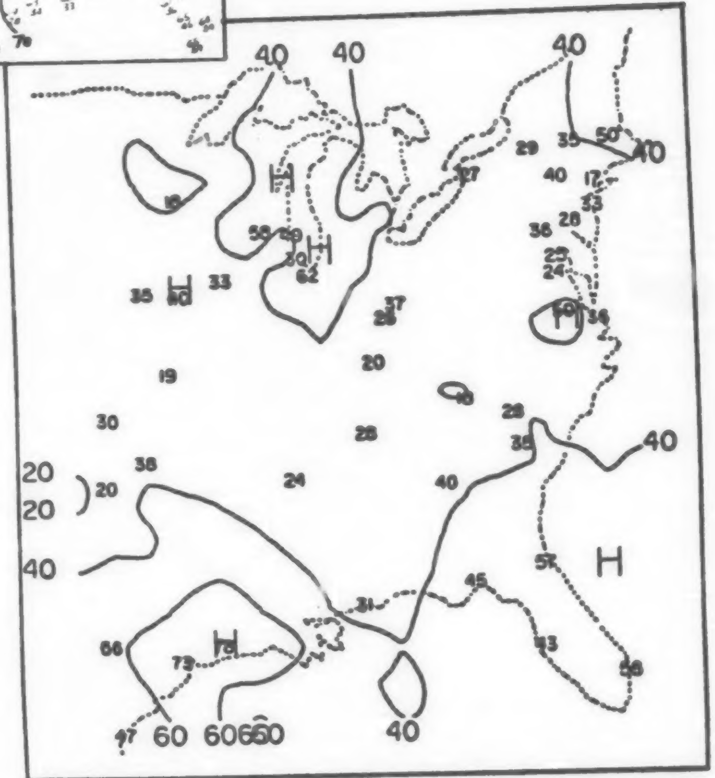
HIGH

1200 GMT WEATHER MAP

MAXIMUM-MINIMUM TEMPERATURE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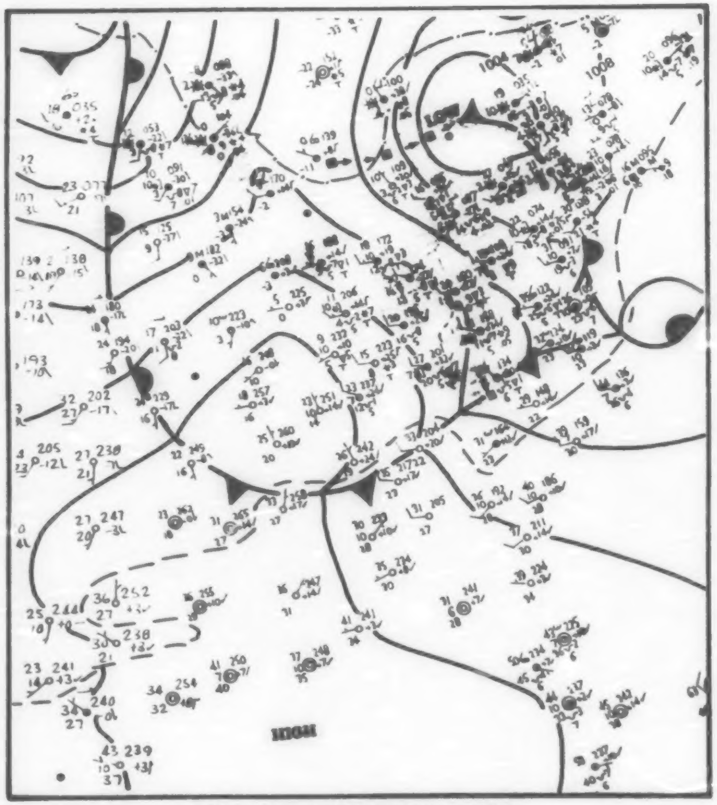
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, FEBRUARY 10, 1974


LOW
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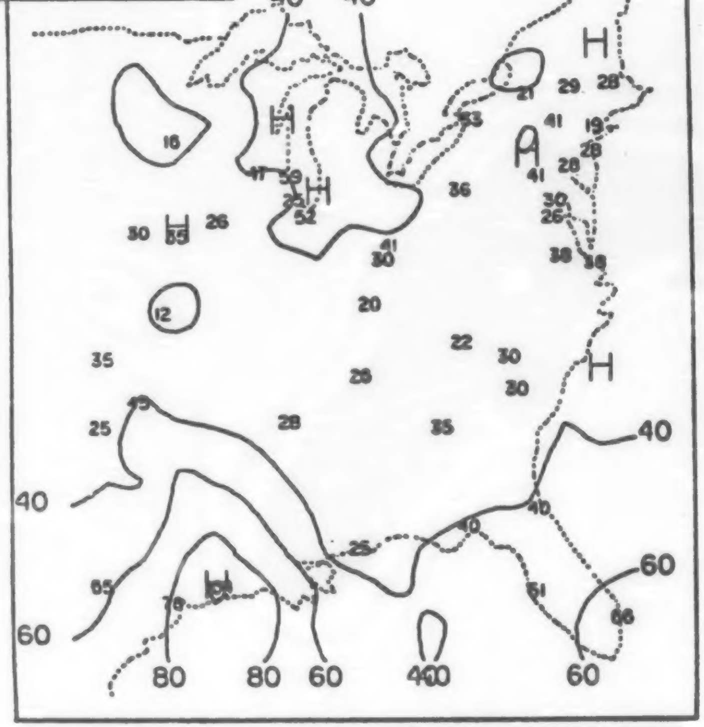
1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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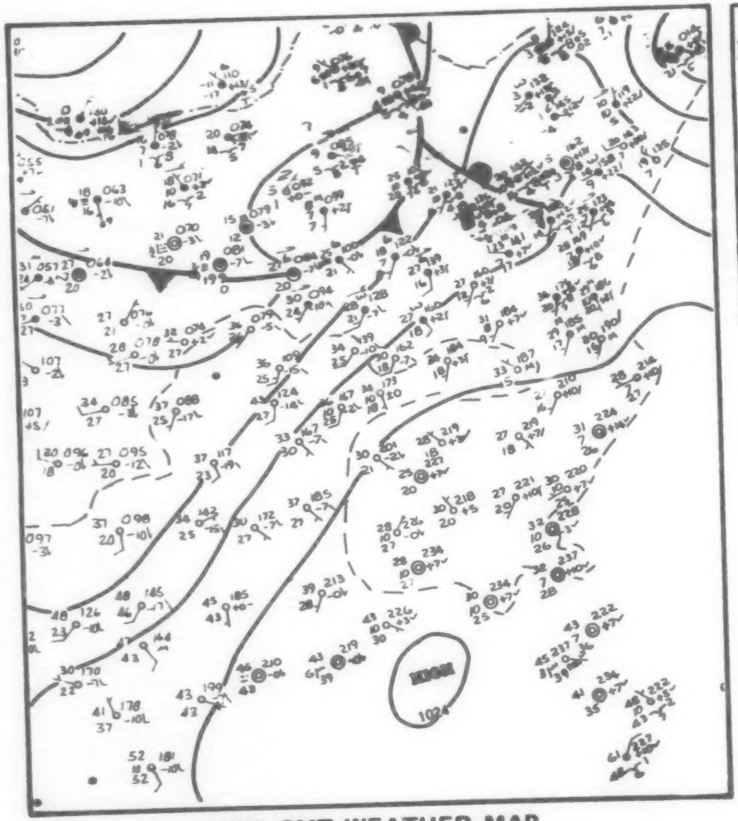
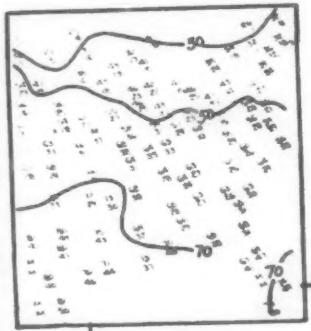
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

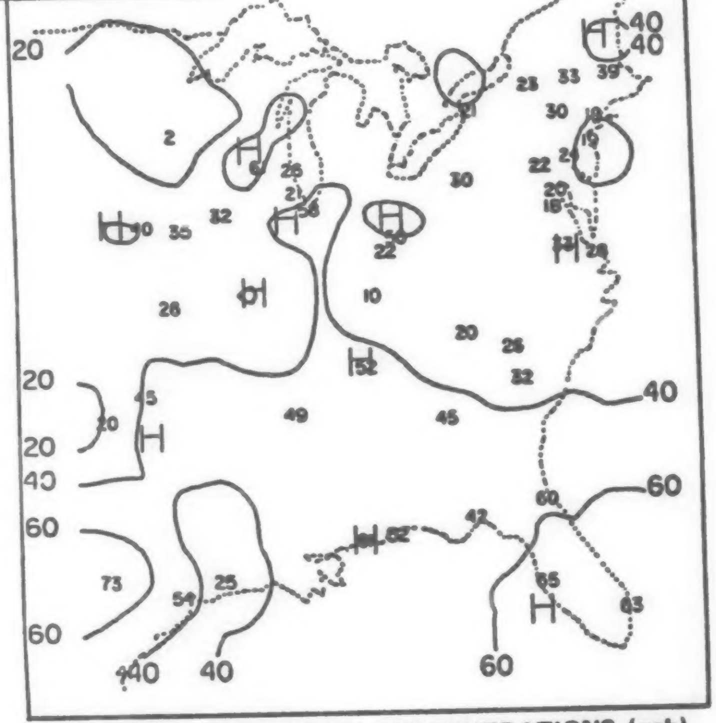
MONDAY, FEBRUARY 11, 1974



**1200 GMT WEATHER MAP**



**MAXIMUM-MINIMUM TEMPERATURE**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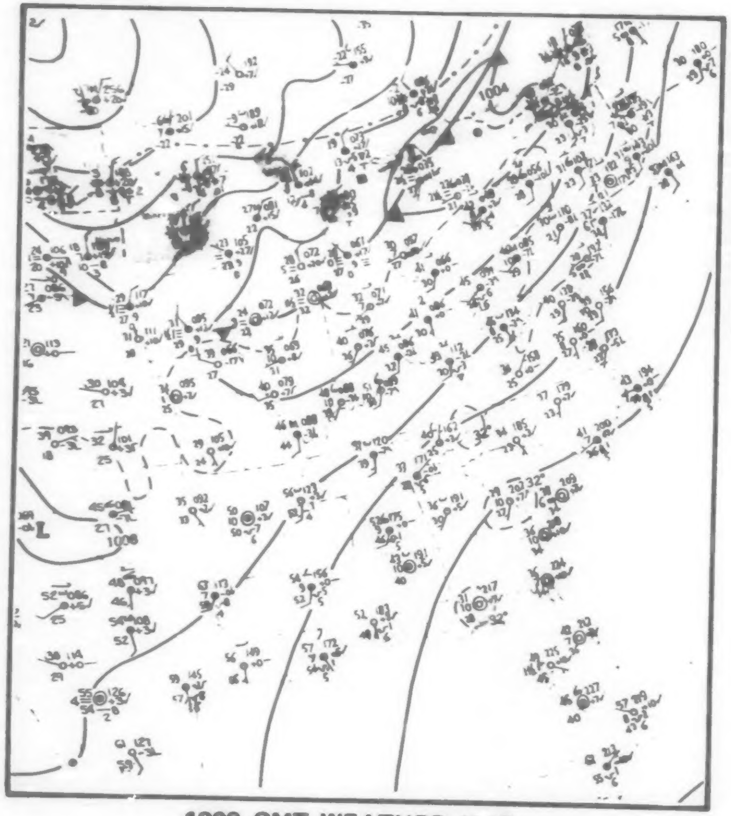
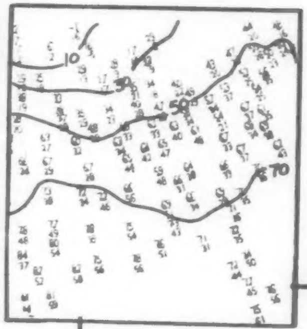
**MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)**

TUESDAY, FEBRUARY 12, 1974



1200 GMT WEATHER MAP



MAXIMUM-
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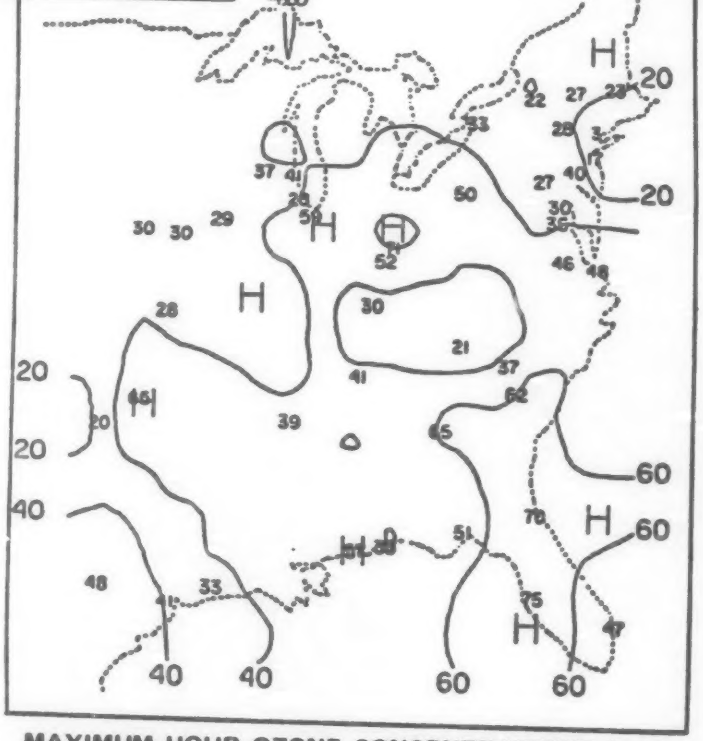
TEMPERATURE



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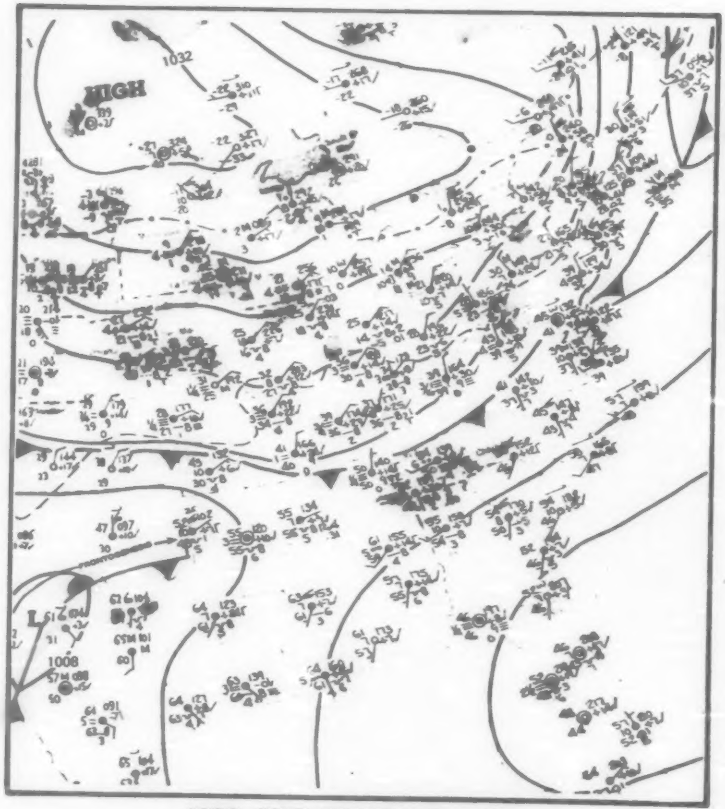
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, FEBRUARY 13, 1974


HIGH
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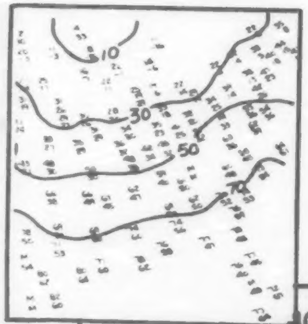
1200 GMT WEATHER MAP



MAXIMUM-
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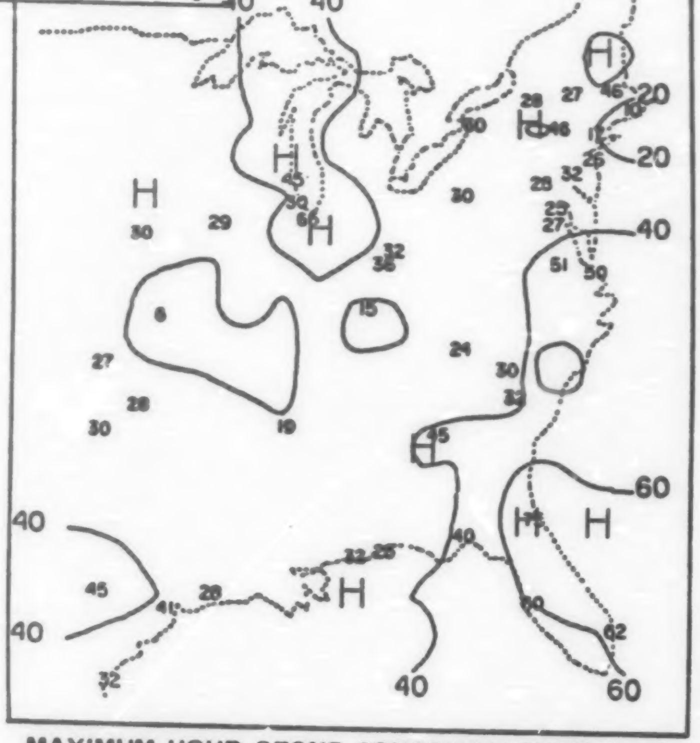
TEMPERATURE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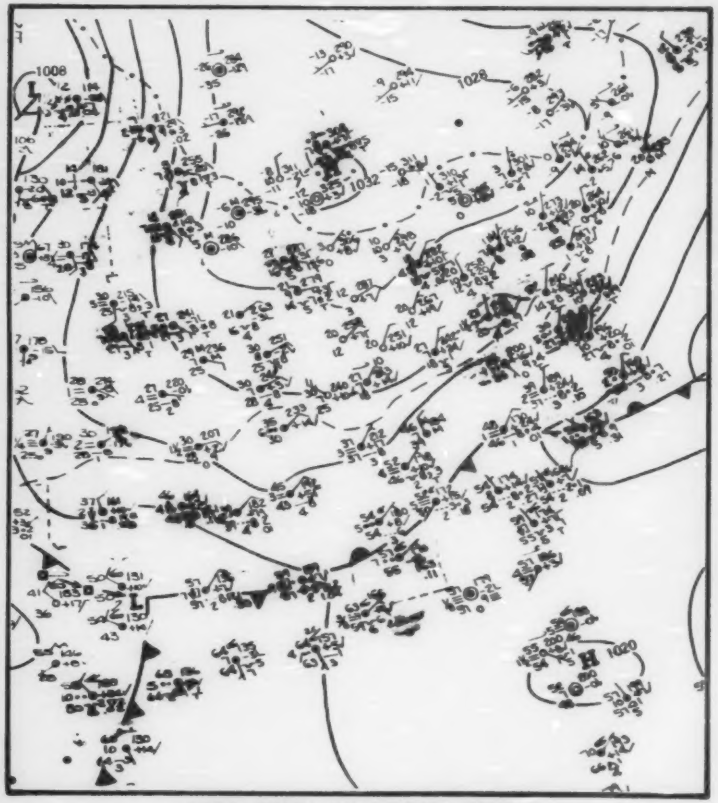
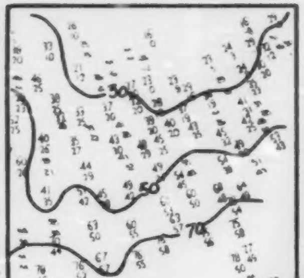
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, FEBRUARY 14, 1974



1200 GMT WEATHER MAP



MAXIMUM-
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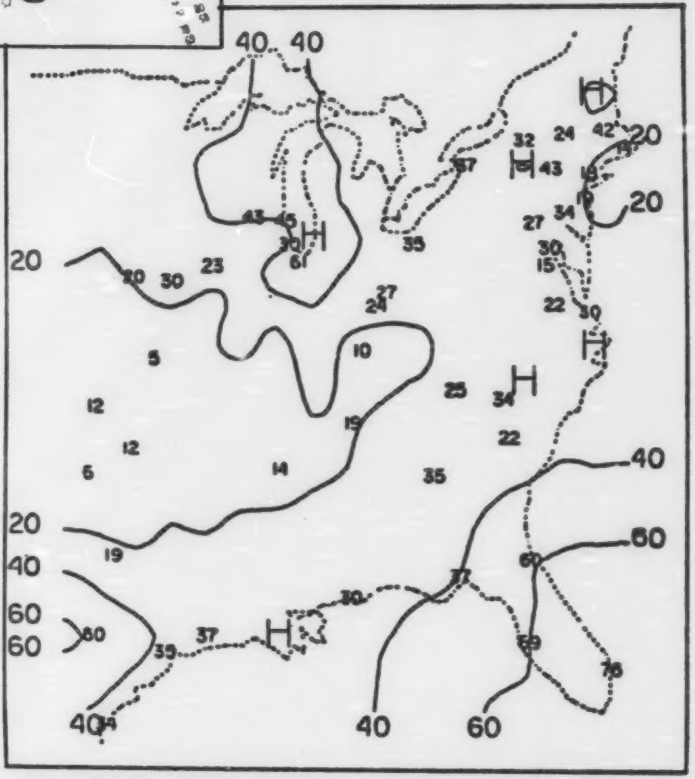
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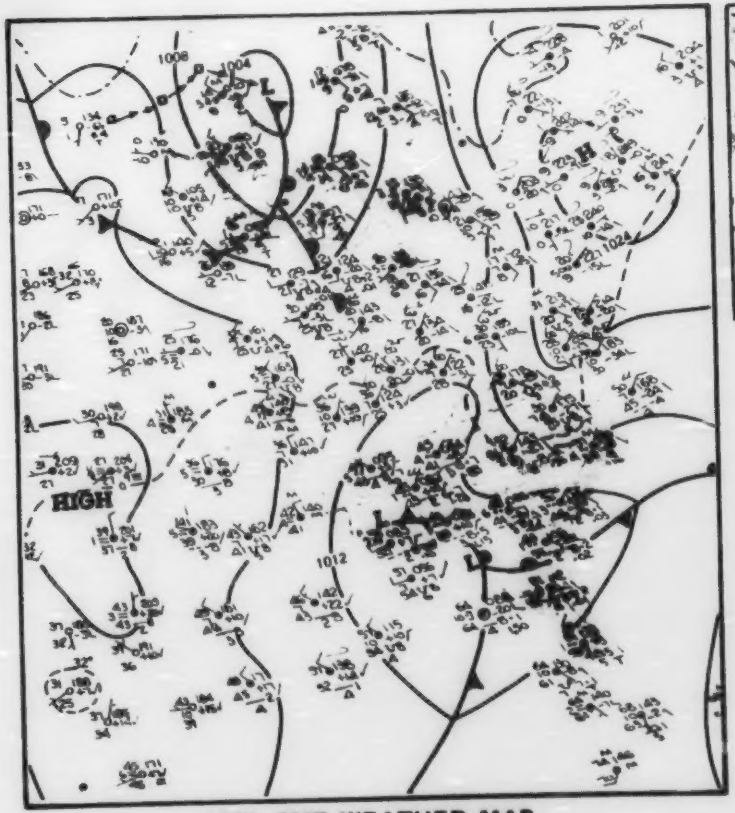
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, FEBRUARY 15, 1974


1006
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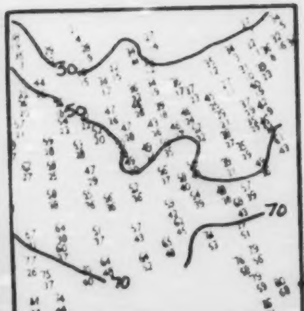
1200 GMT WEATHER MAP



MAXIMUM-
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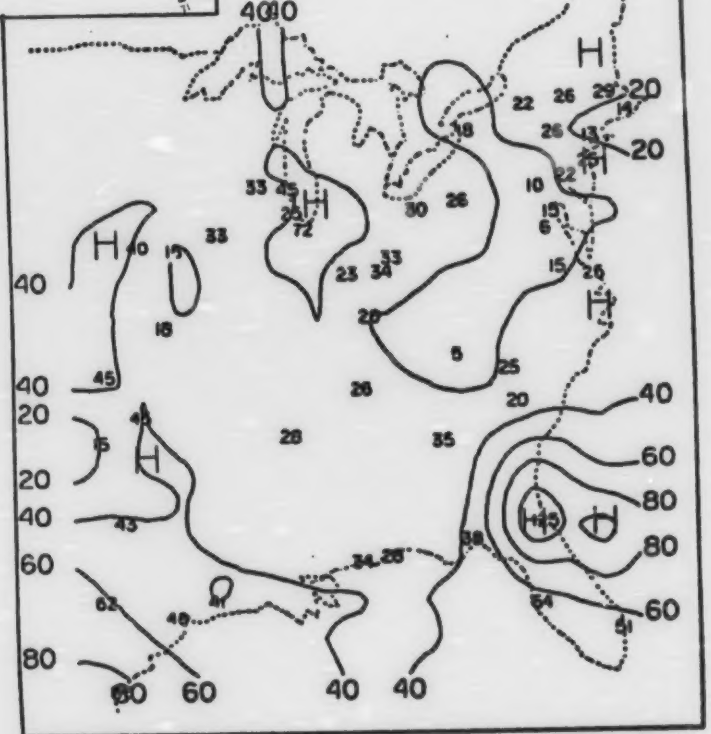
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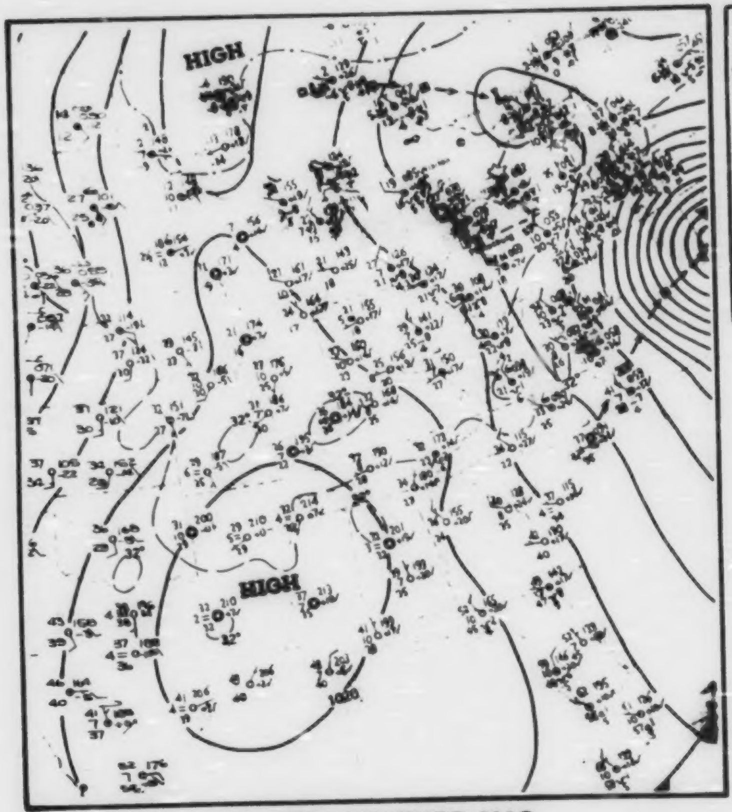
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, FEBRUARY 16, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
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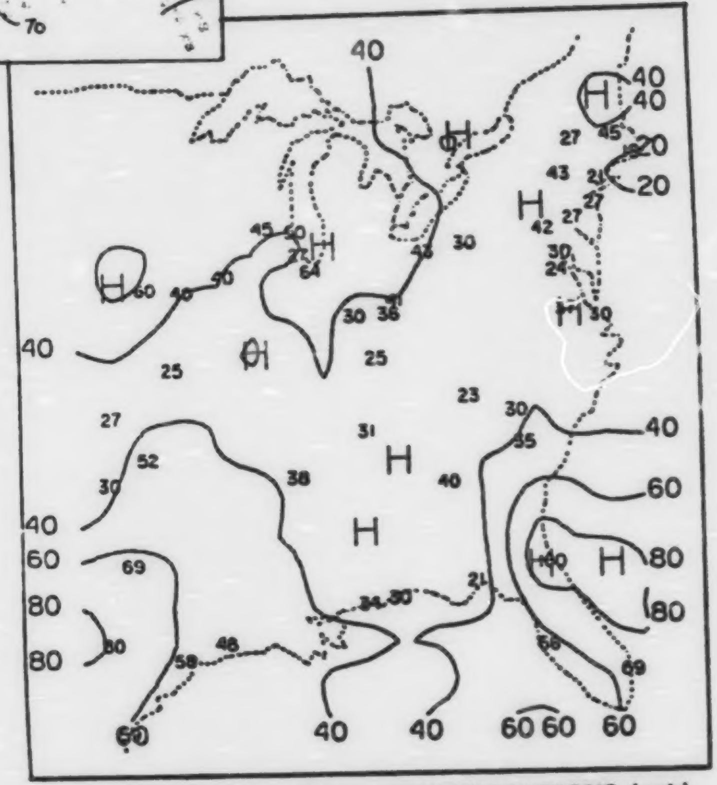
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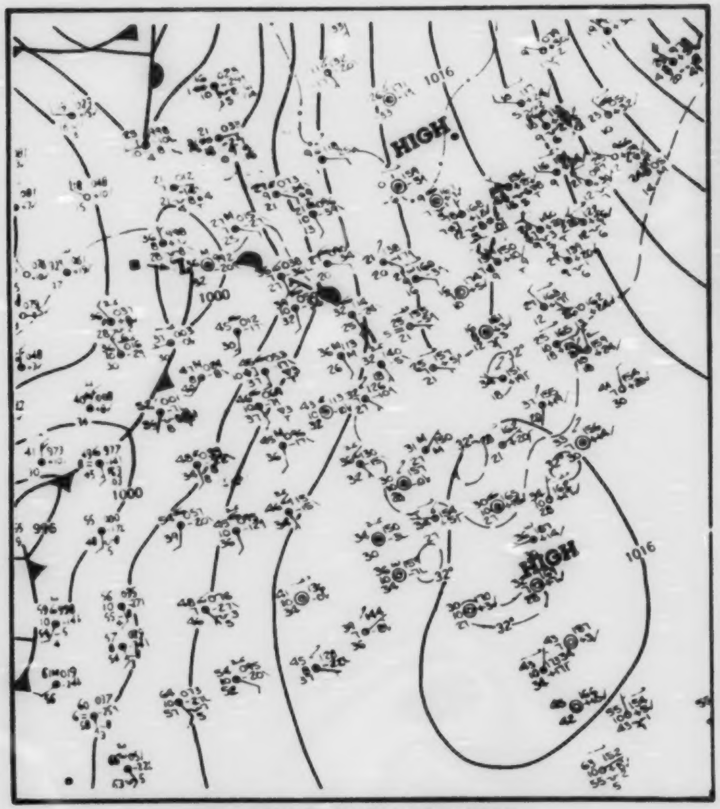
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, FEBRUARY 17, 1974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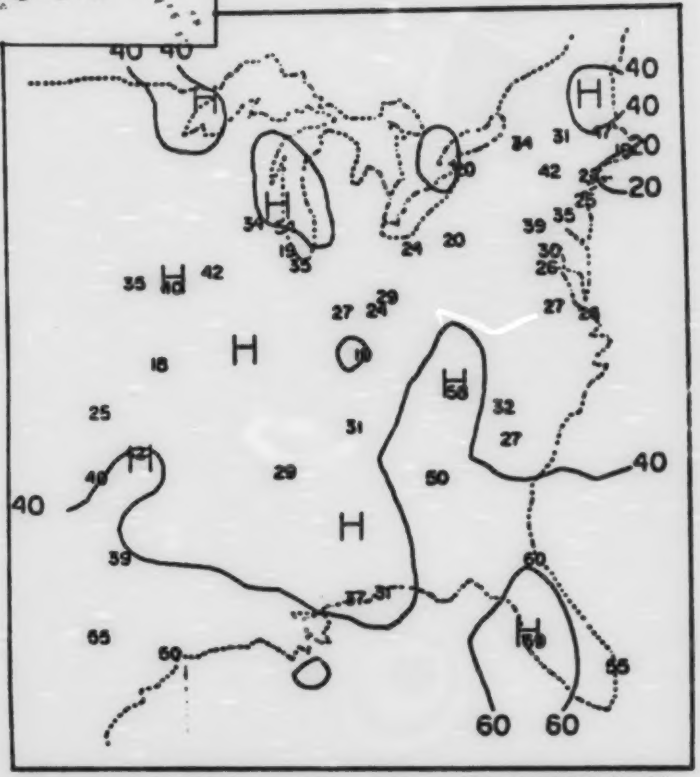
1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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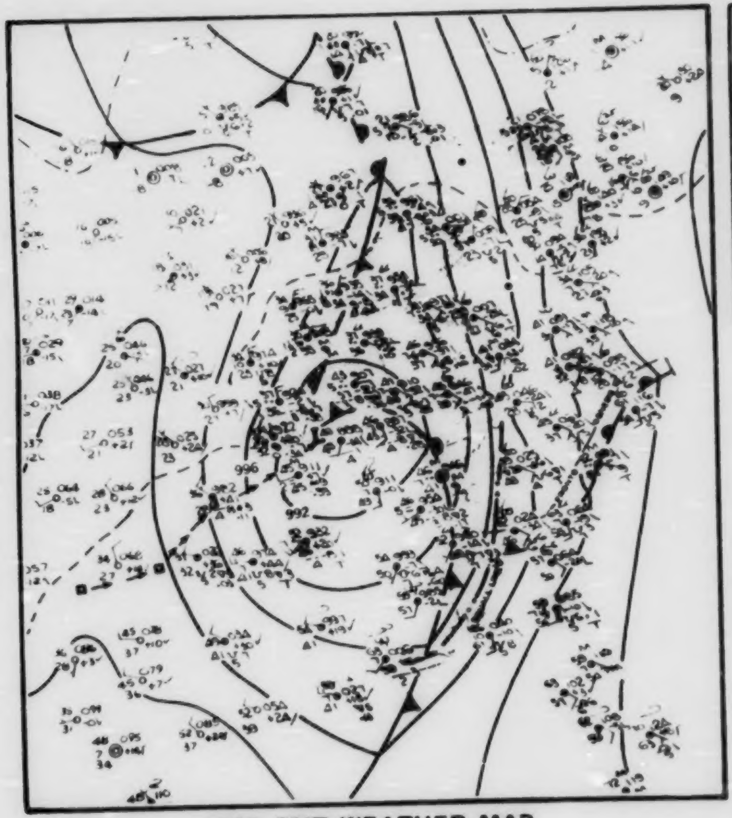
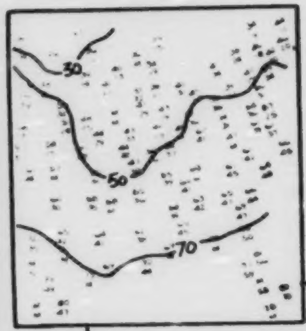
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, FEBRUARY 18, 1974



1200 GMT WEATHER MAP



MAXIMUM-
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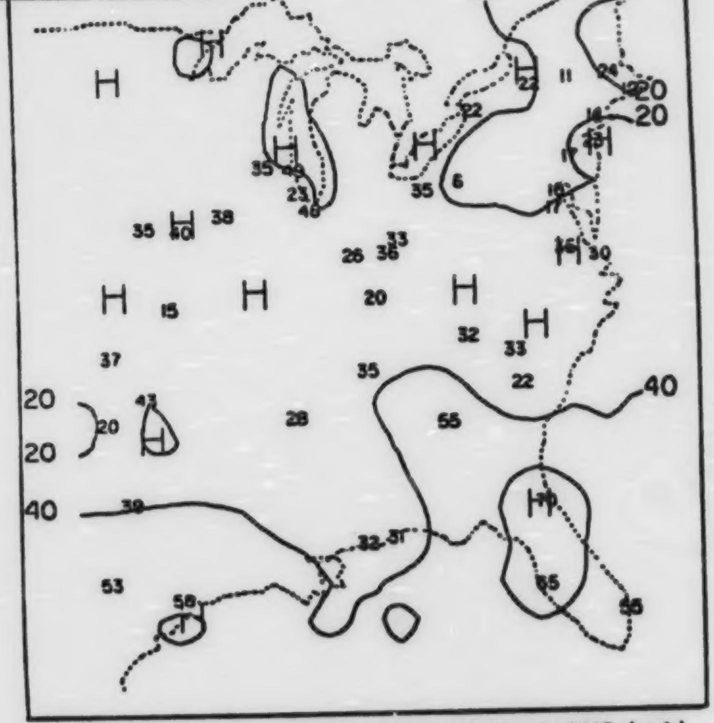
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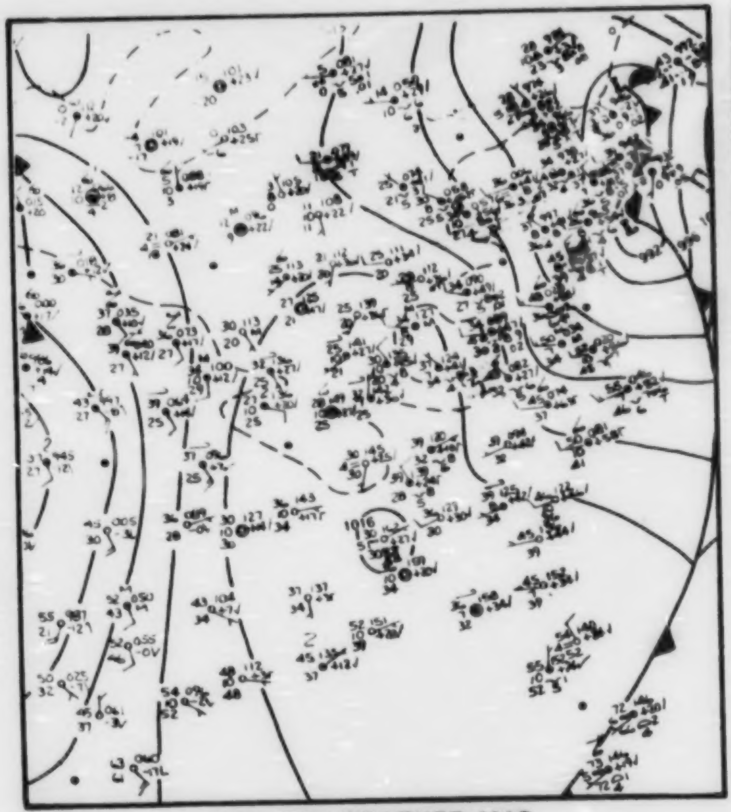
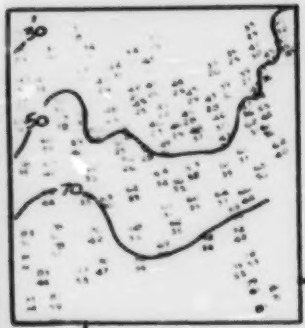
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, FEBRUARY 19, 1974



1200 GMT WEATHER MAP



MAXIMUM-
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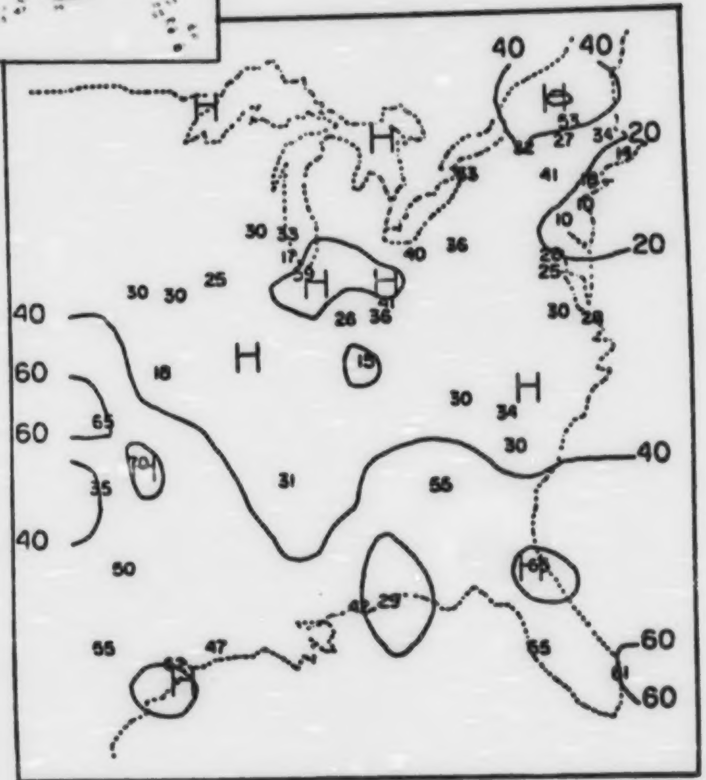
TEMPERATURE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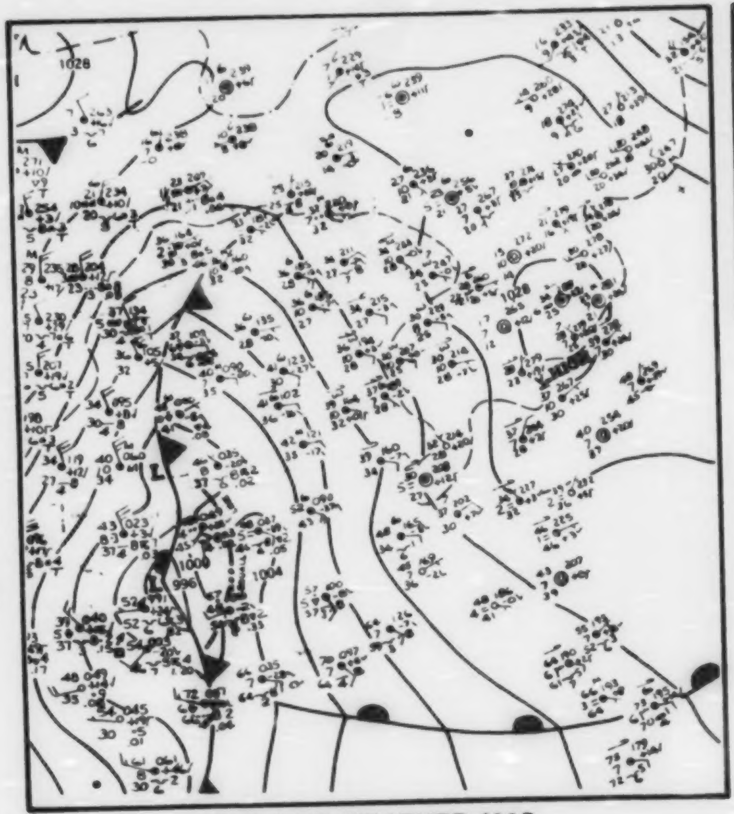
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, FEBRUARY 20, 1974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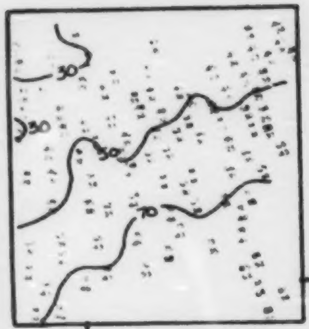
1200 GMT WEATHER MAP



MAXIMUM-
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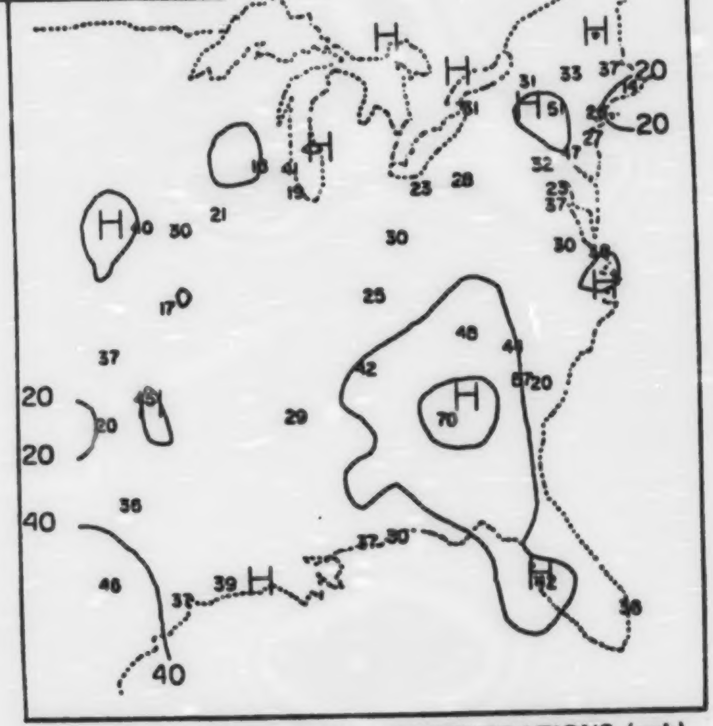
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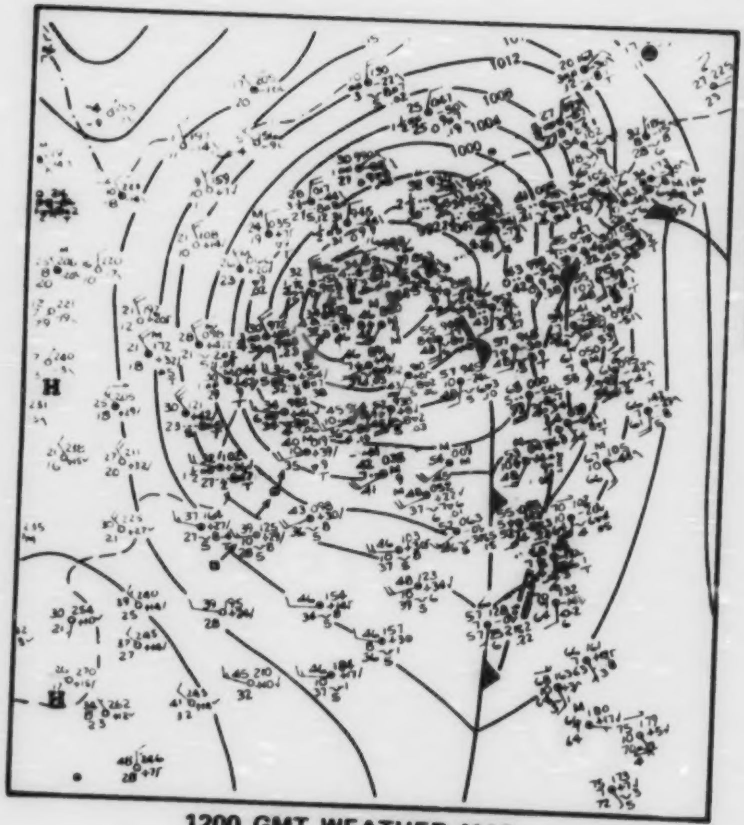
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, FEBRUARY 21, 1974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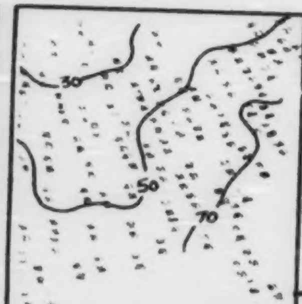
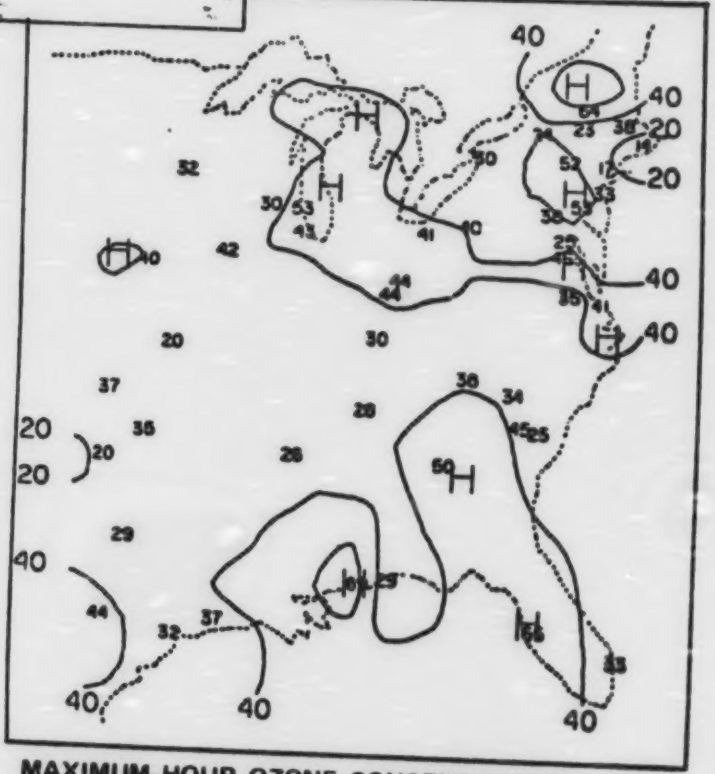
1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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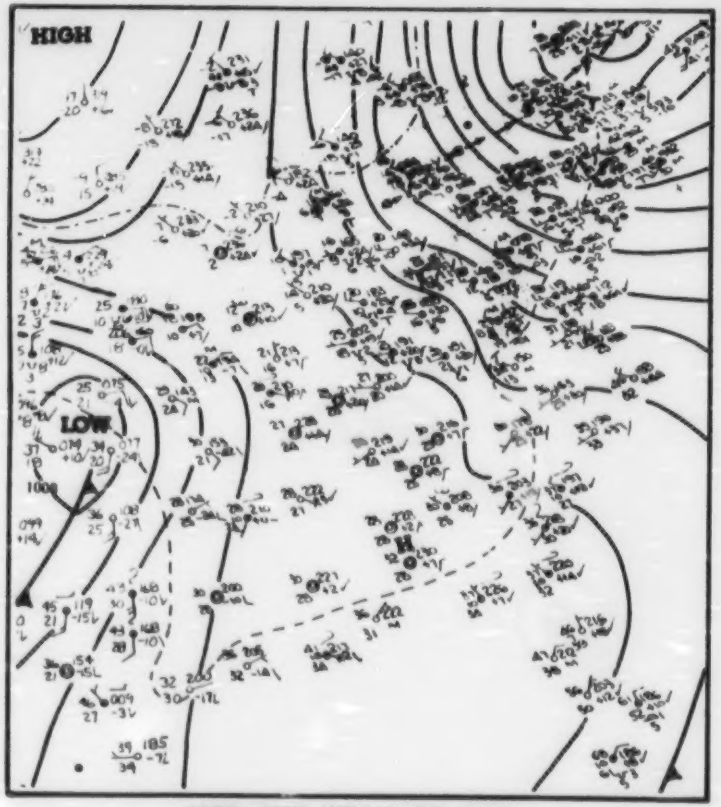
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, FEBRUARY 22, 1974



1200 GMT WEATHER MAP

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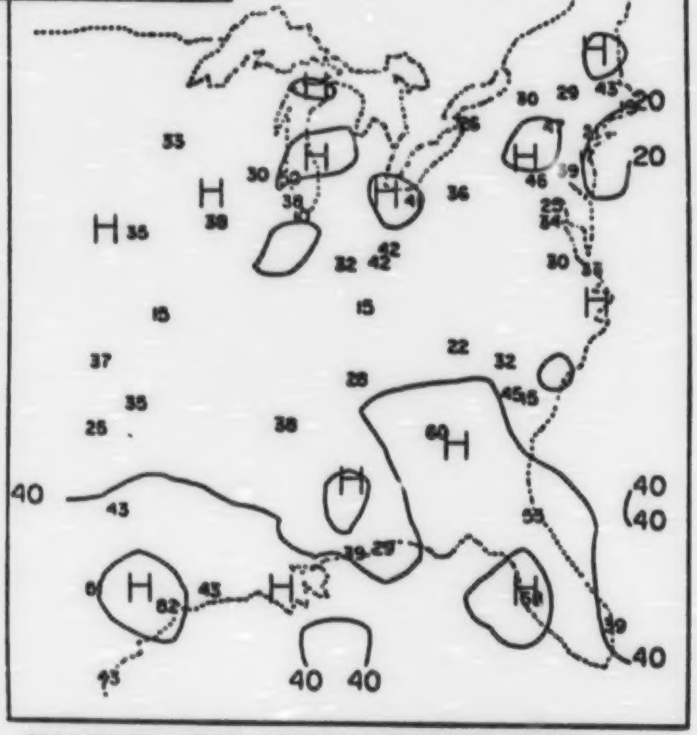
MAXIMUM-
MINIMUM
TEMPERATURE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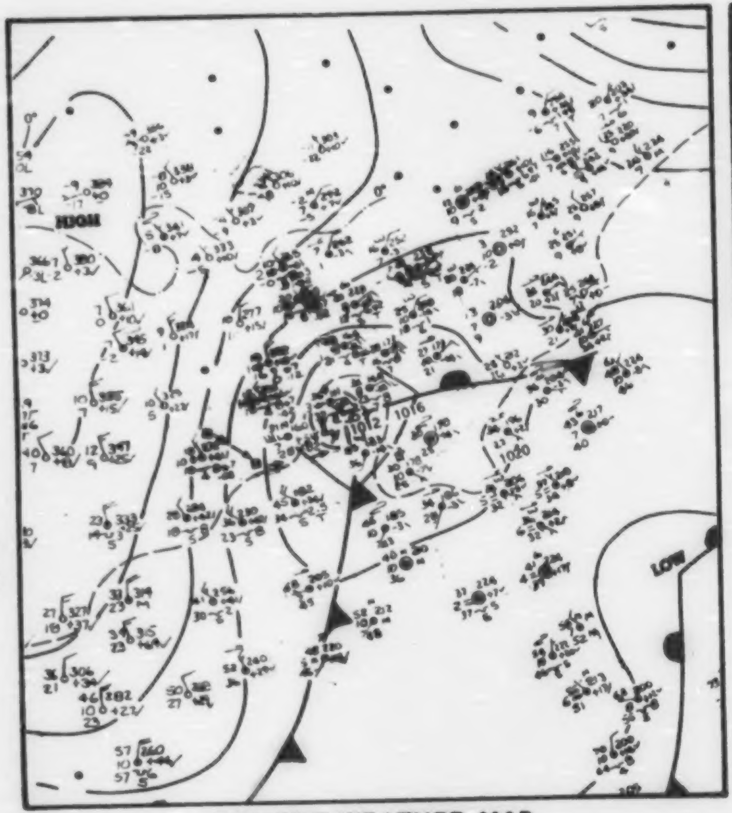
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, FEBRUARY 23, 1974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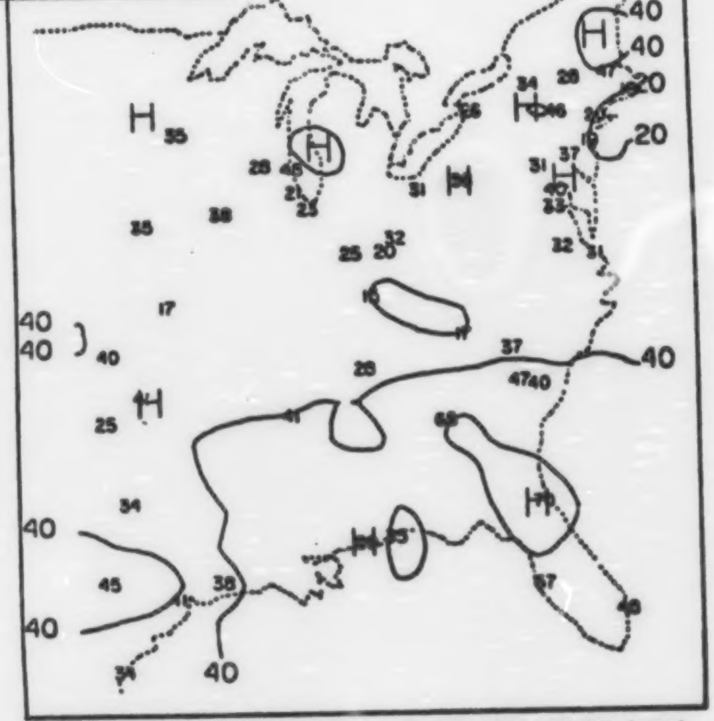
1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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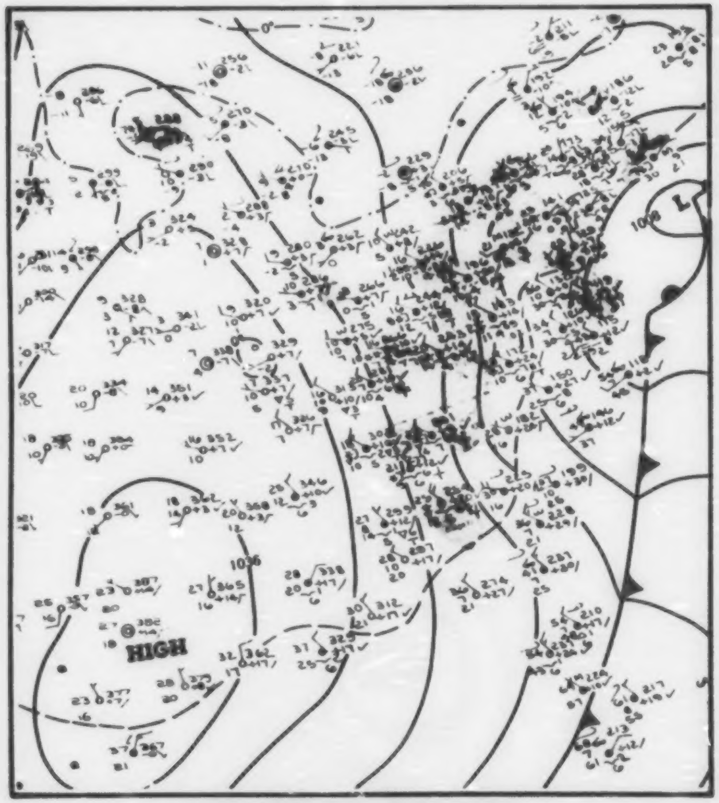
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, FEBRUARY 24, 1974


HIGH
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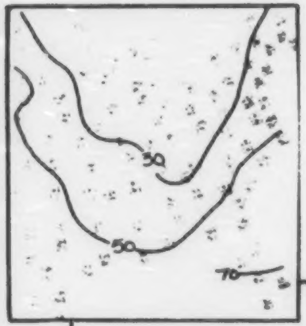
1008

1200 GMT WEATHER MAP



MAXIMUM-
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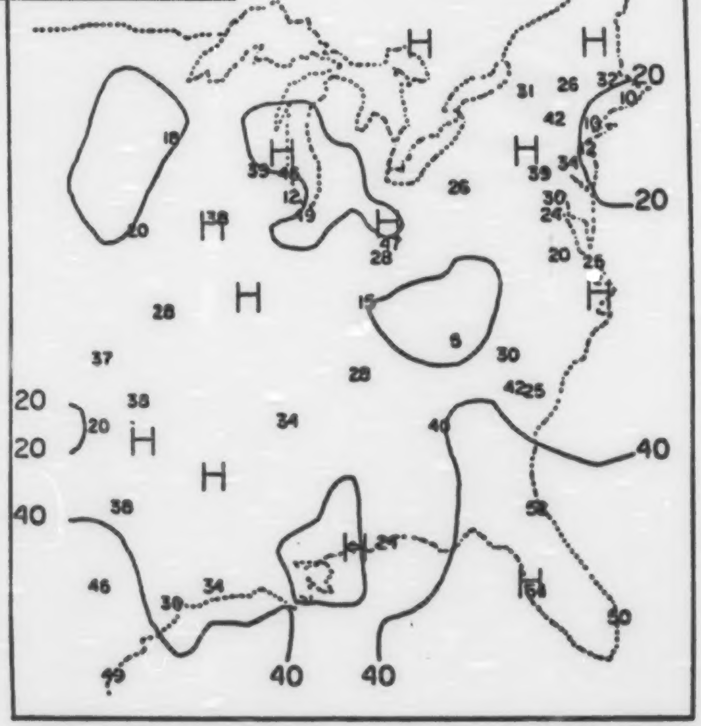
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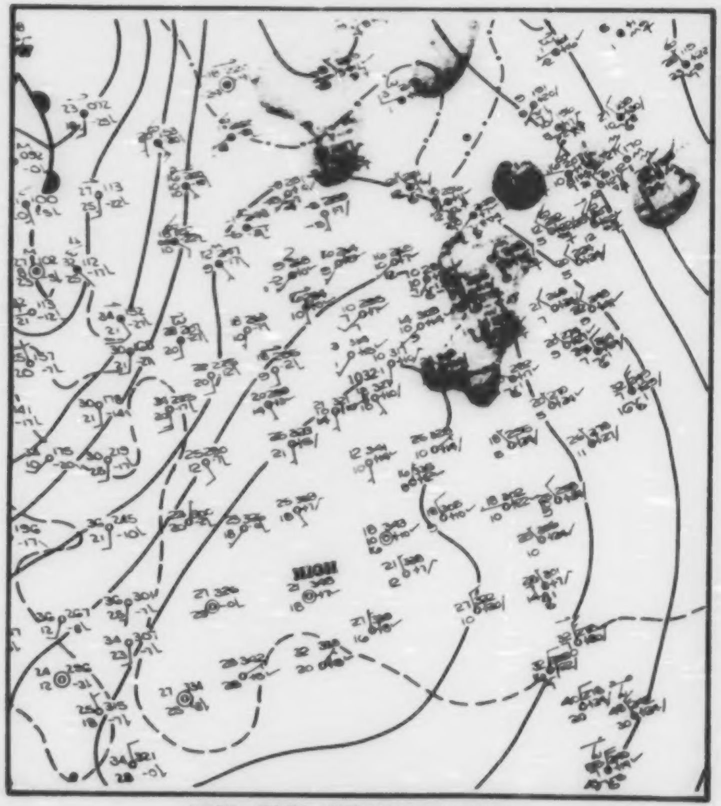
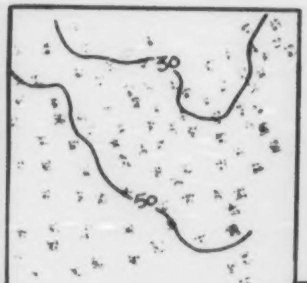
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, FEBRUARY 25, 1974



1200 GMT WEATHER MAP



MAXIMUM-
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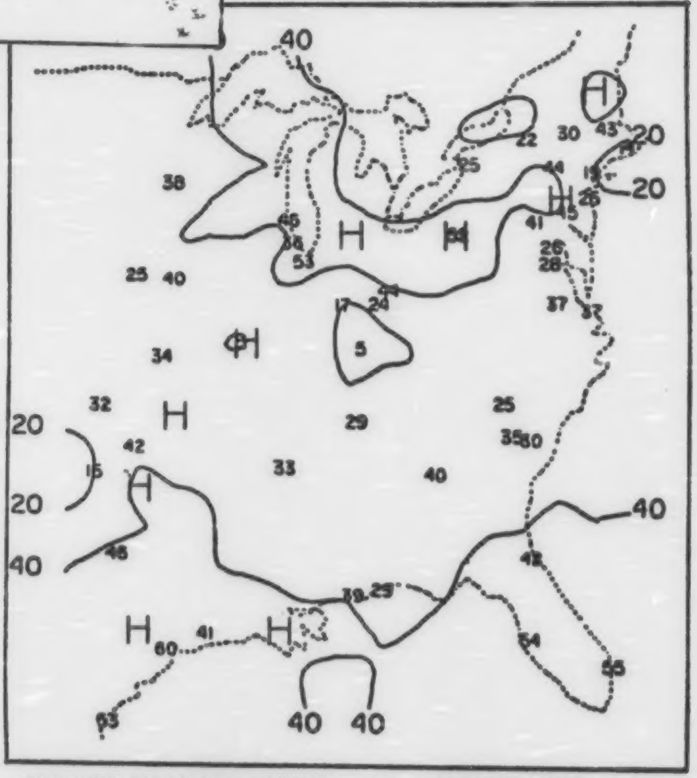
TEMPERATURE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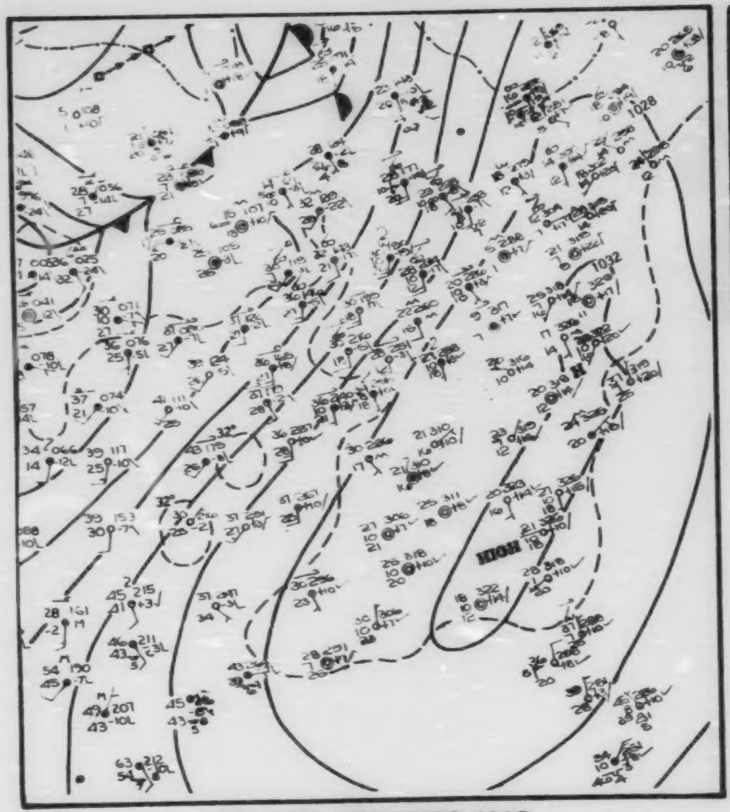
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, FEBRUARY 26, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
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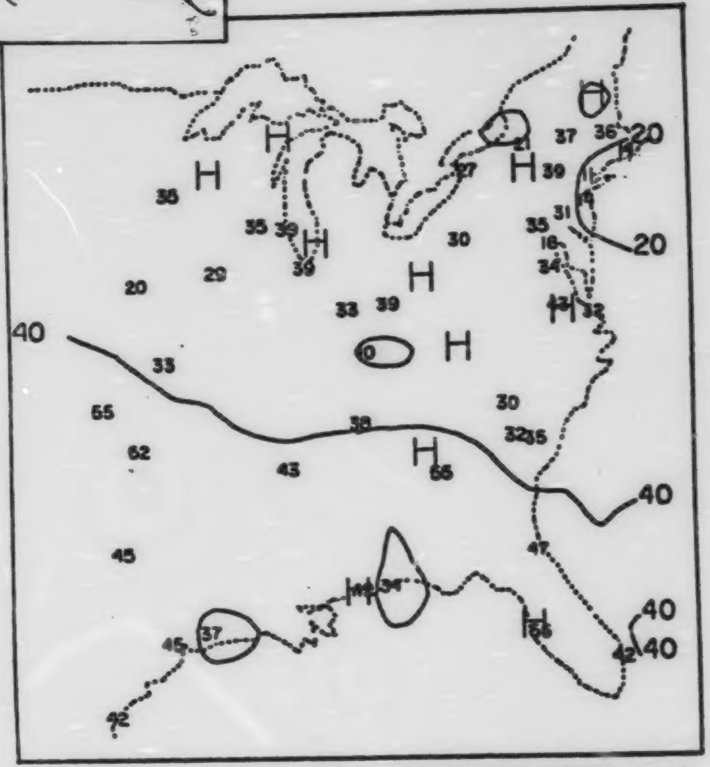
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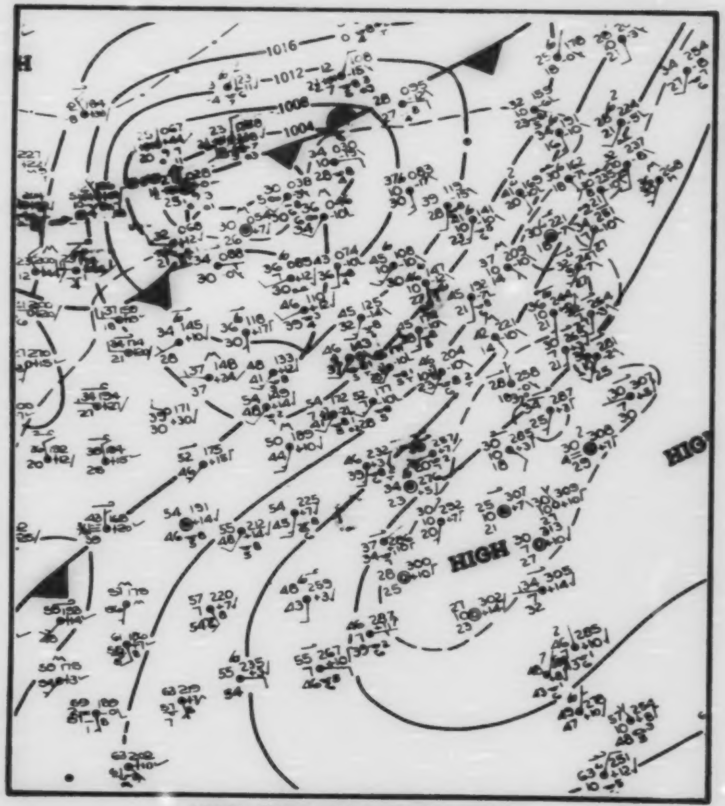
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, FEBRUARY 27, 1974


1016
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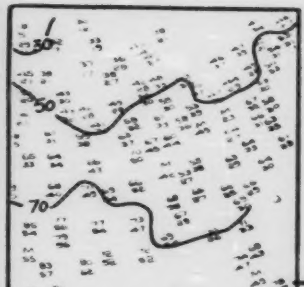
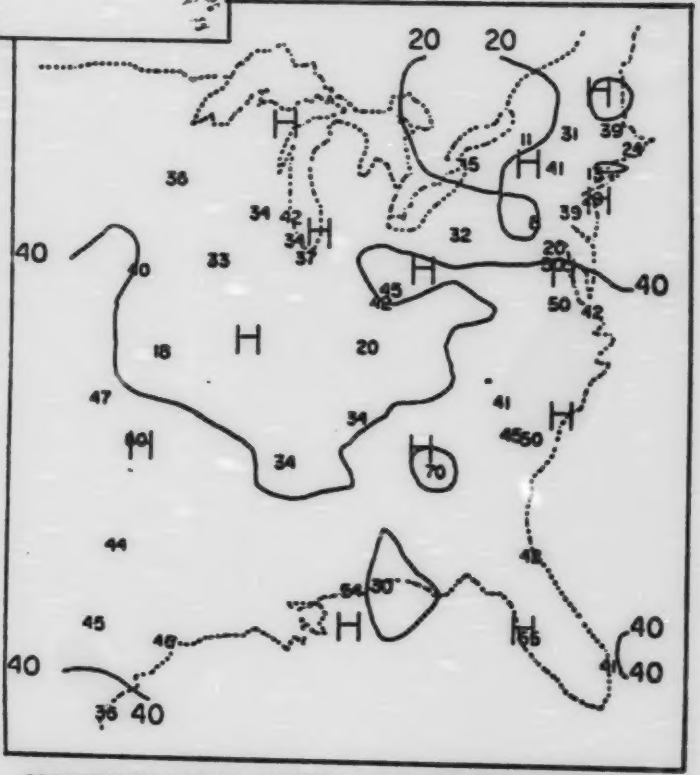
HIGH

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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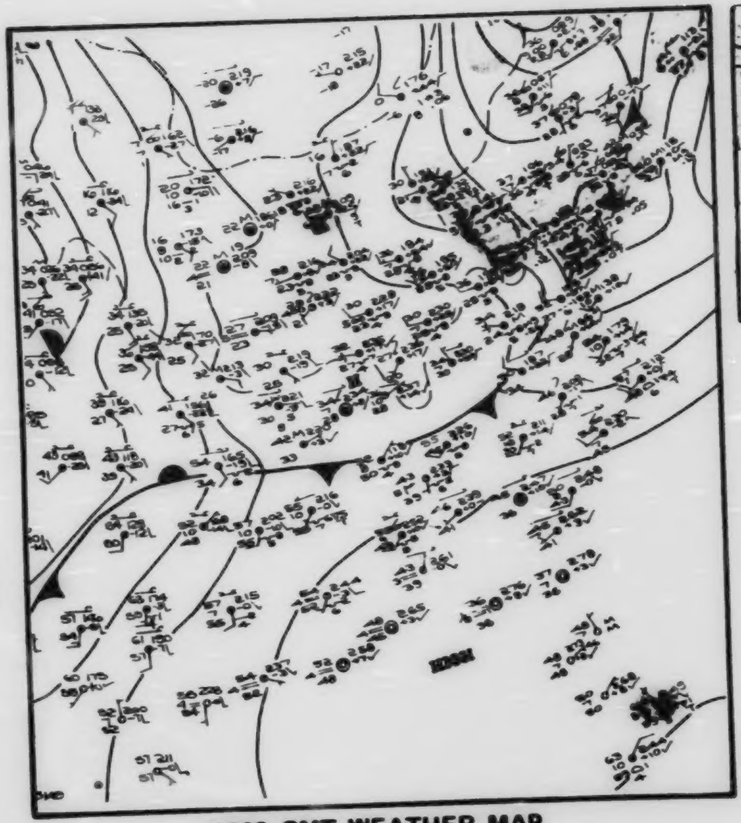
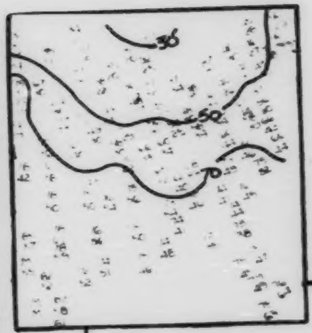
THURSDAY, FEBRUARY 28, 1974

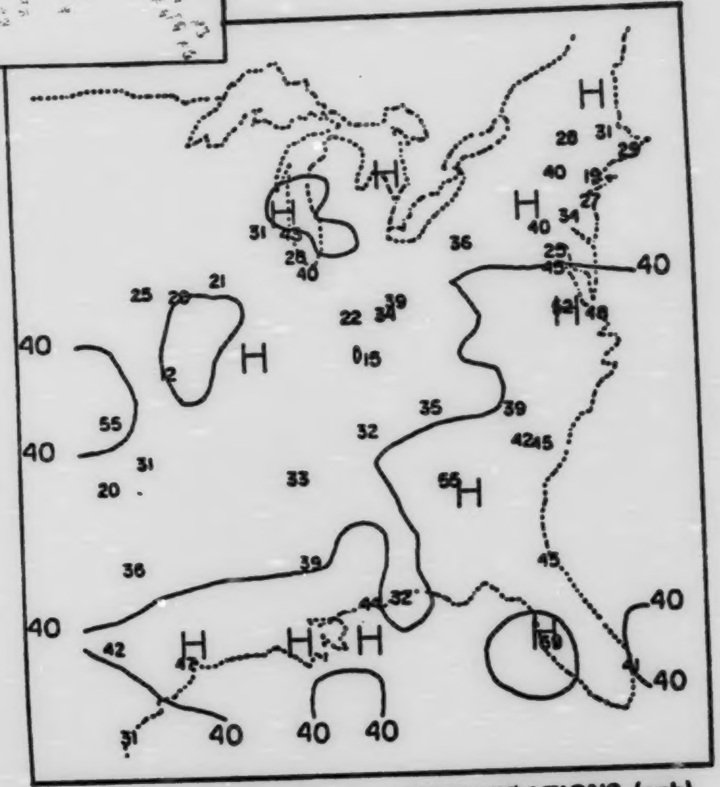
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)



1200 GMT WEATHER MAP

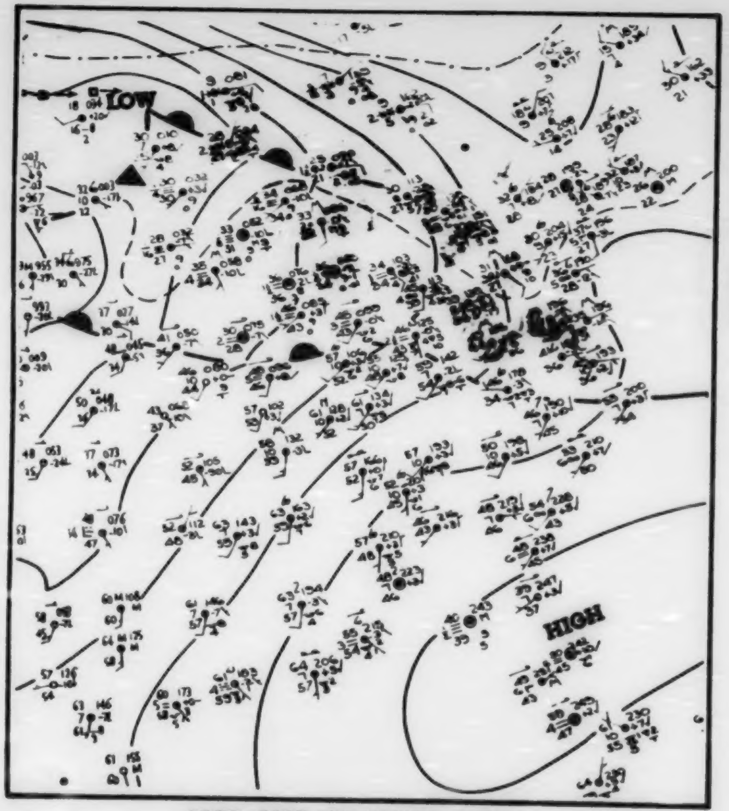


MAXIMUM-
MINIMUM
TEMPERATURE

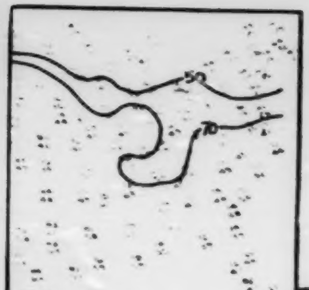


MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, MARCH 1, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
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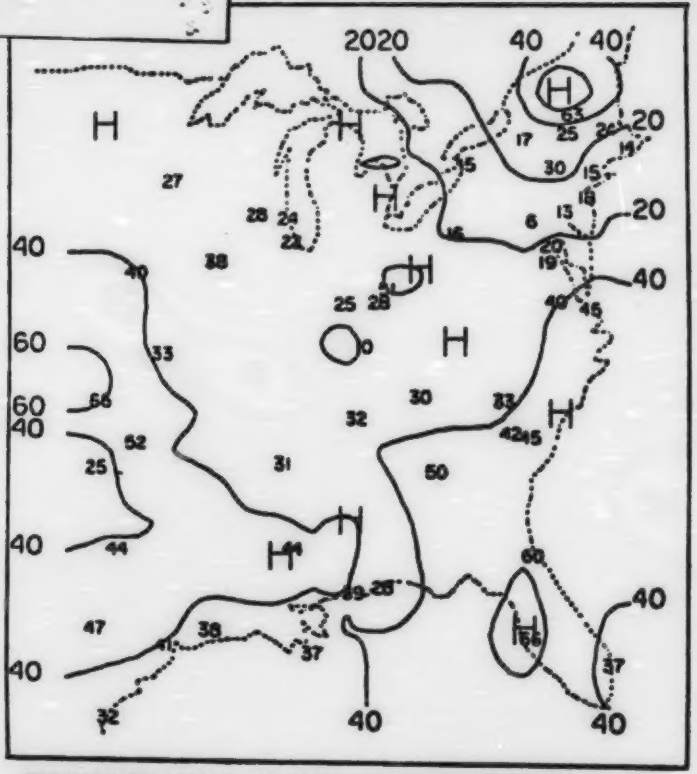
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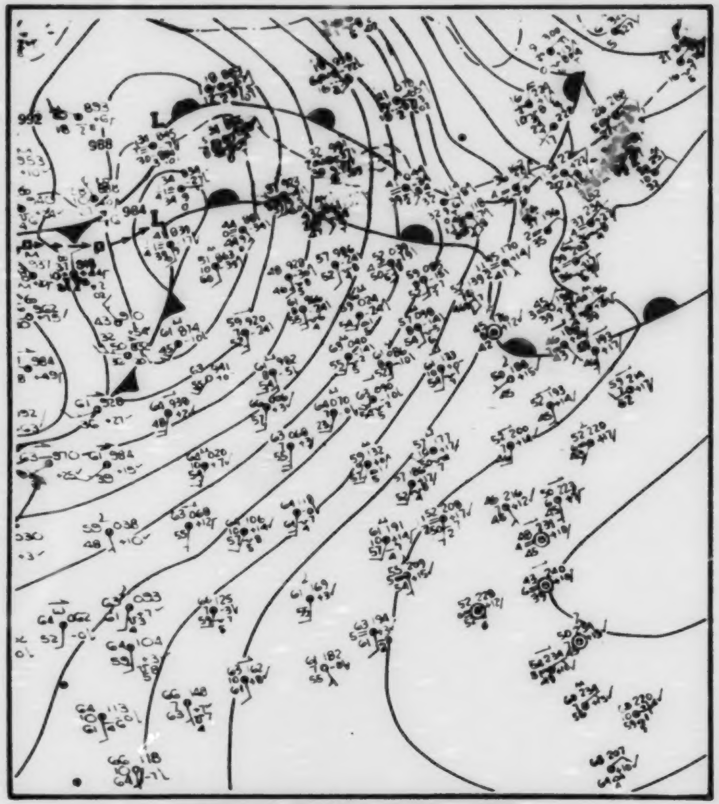
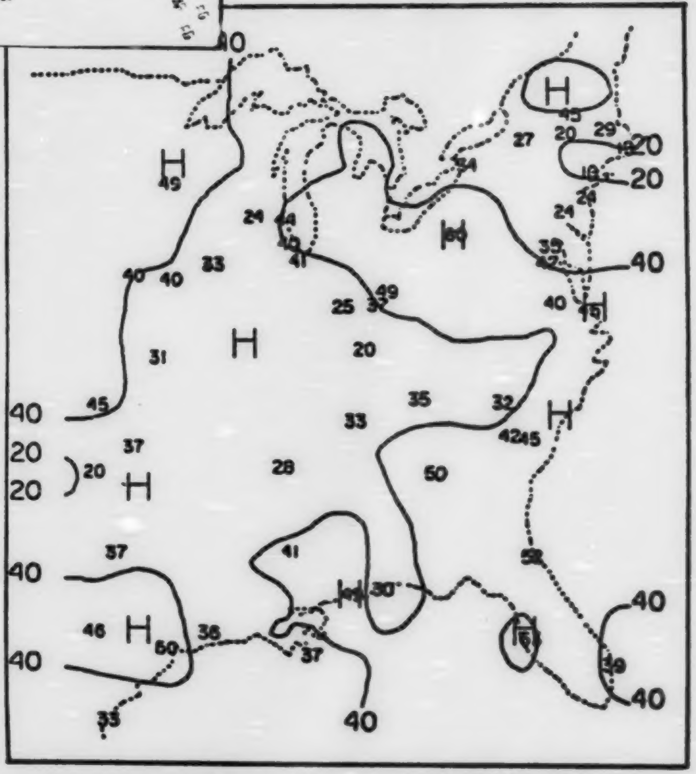
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, MARCH 2, 1974



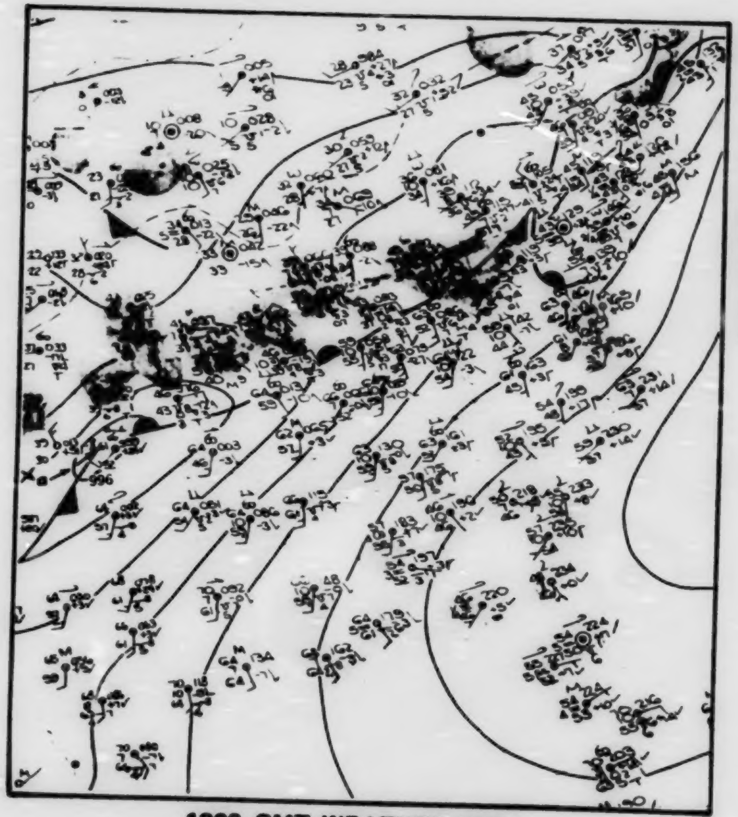
1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE

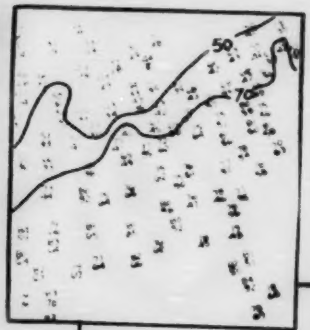


MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, MARCH 3, 1974



1200 GMT WEATHER MAP



MAXIMUM-
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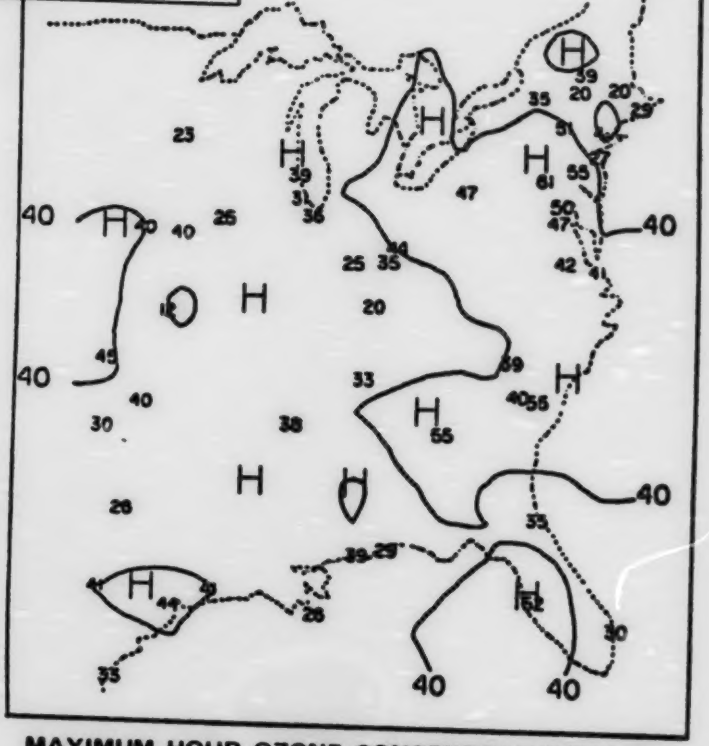
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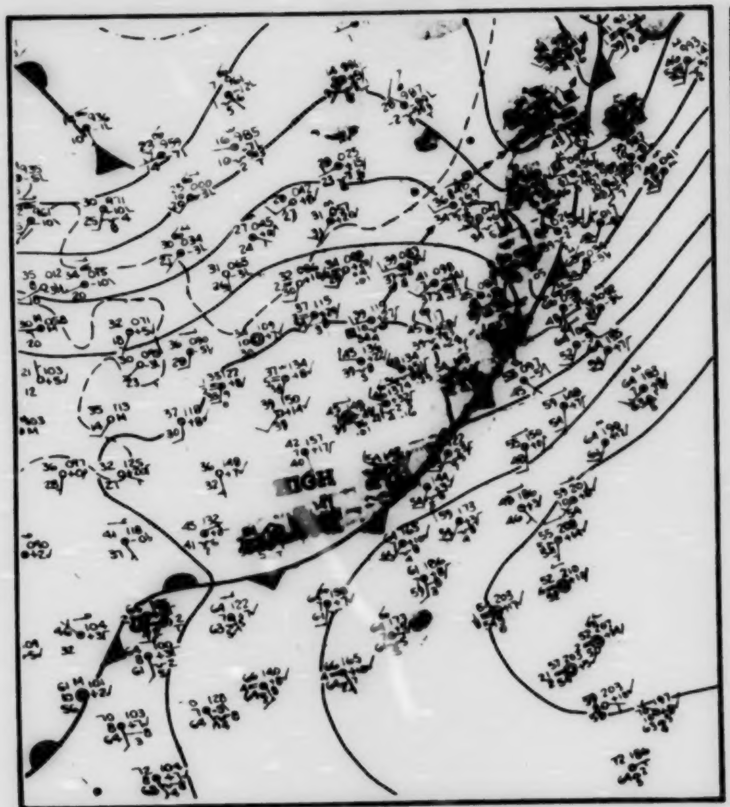
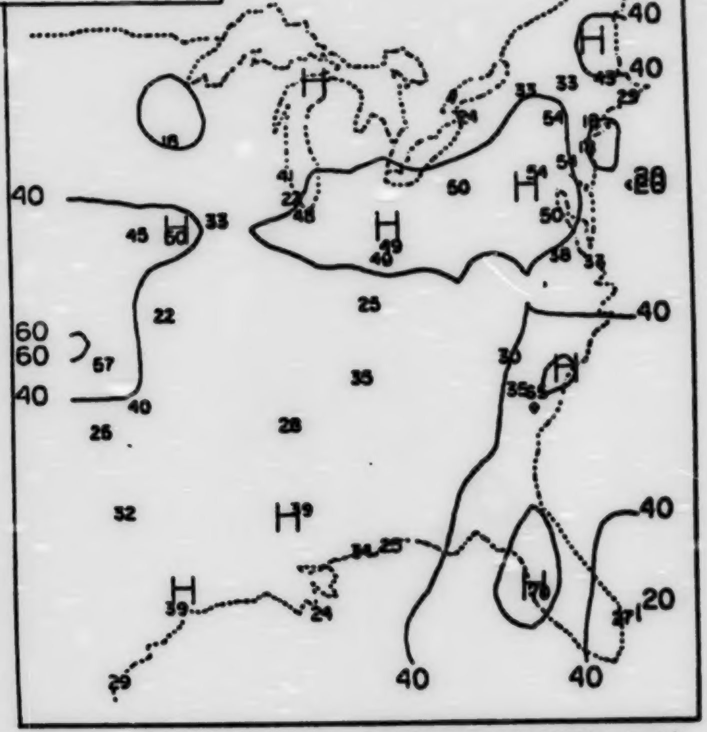
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, MARCH 4, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE



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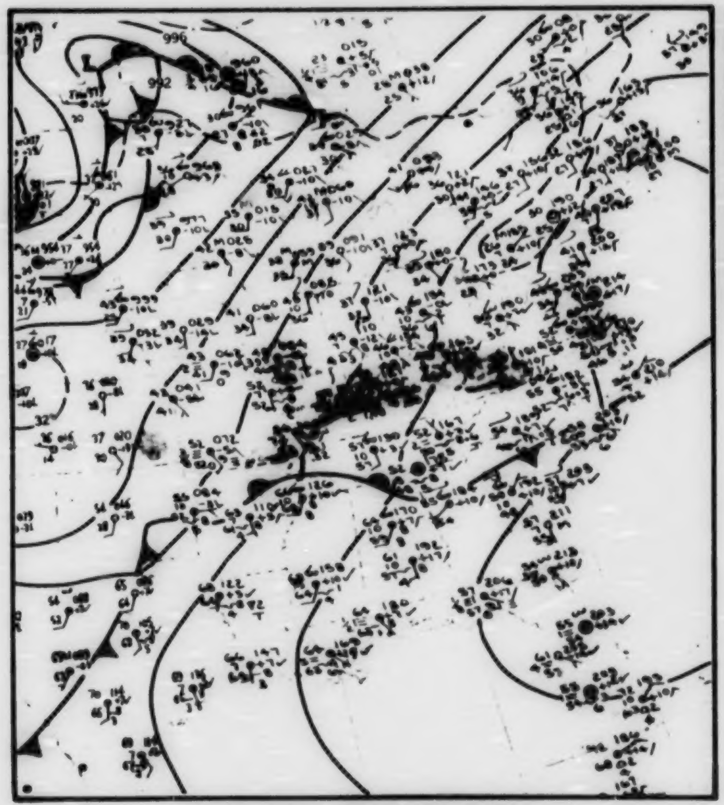
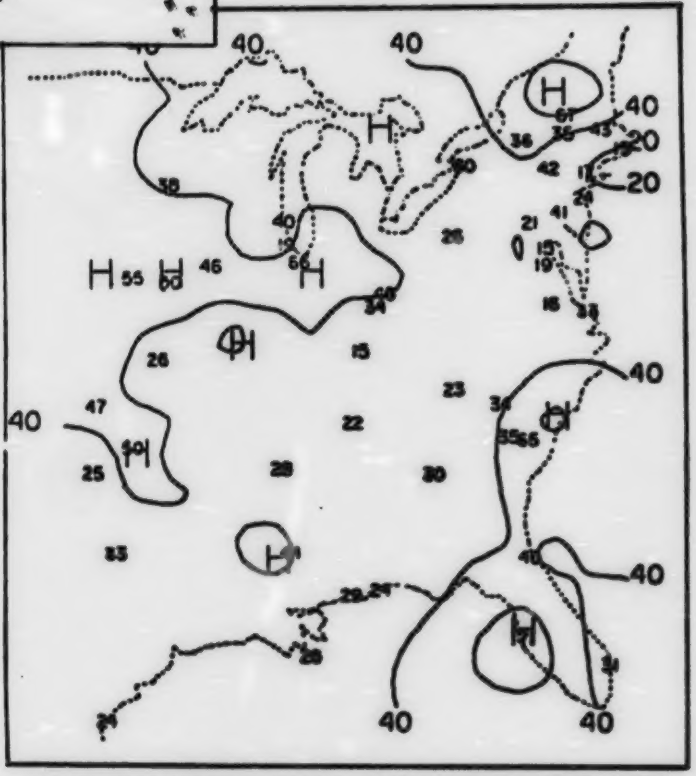
TUESDAY, MARCH 5, 1974

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)



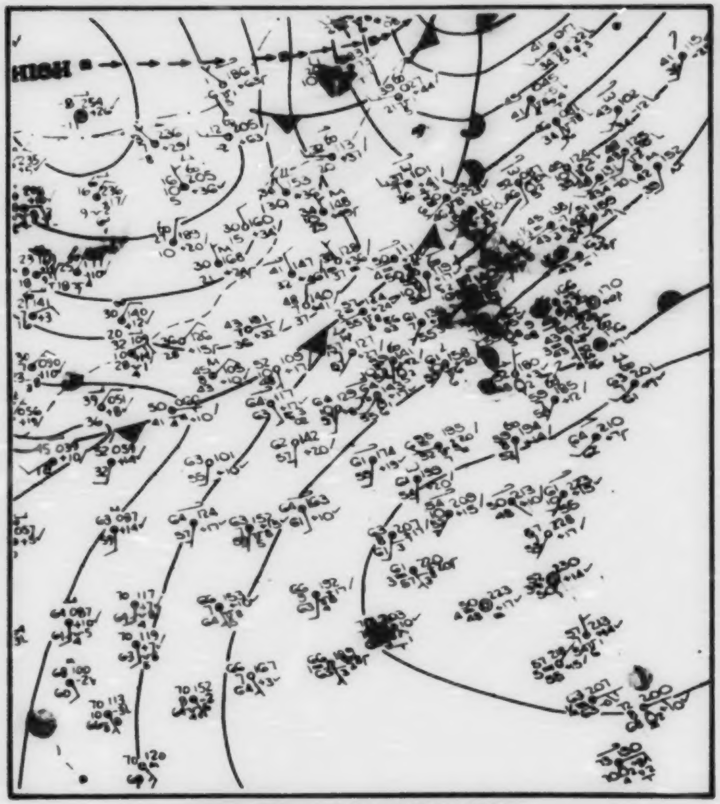
1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE



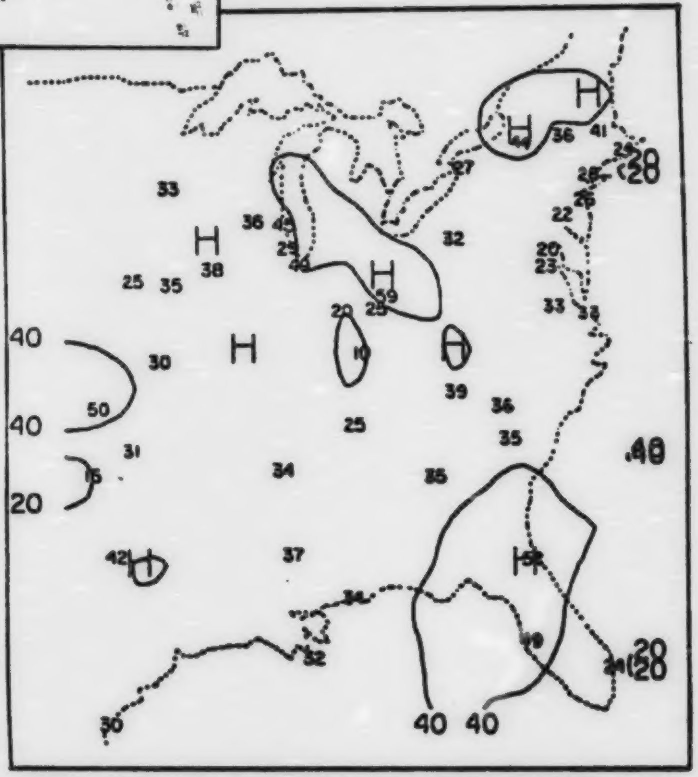
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, MARCH 6, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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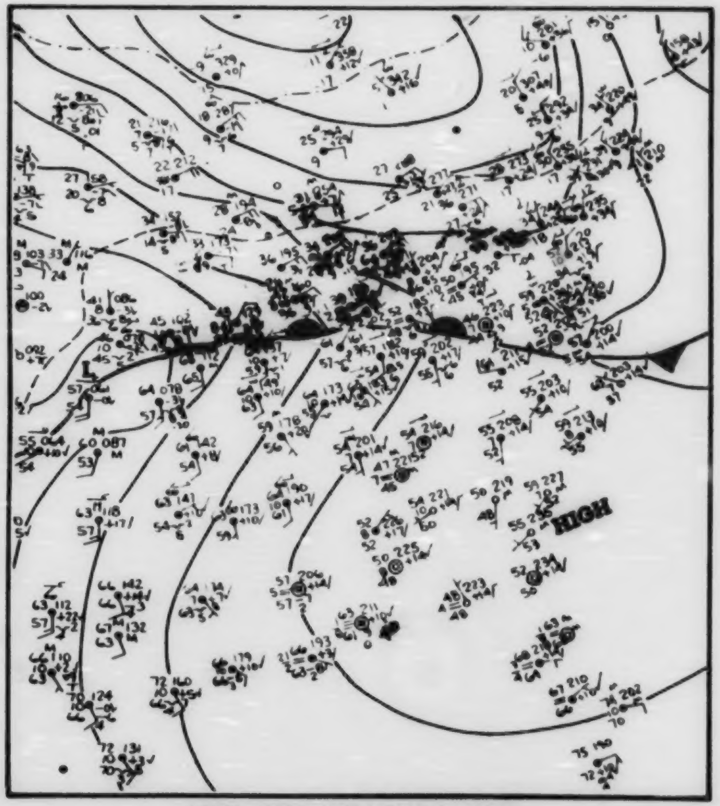
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, MARCH 7, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
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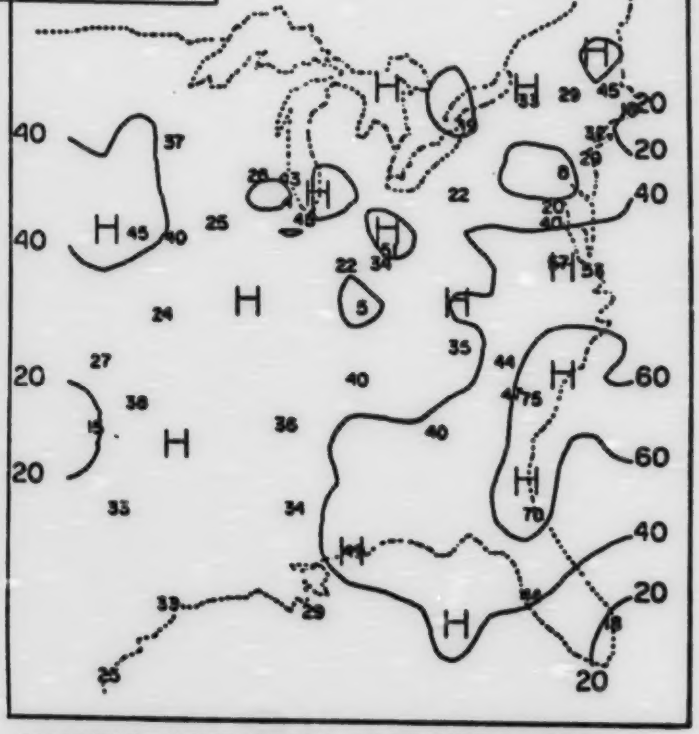
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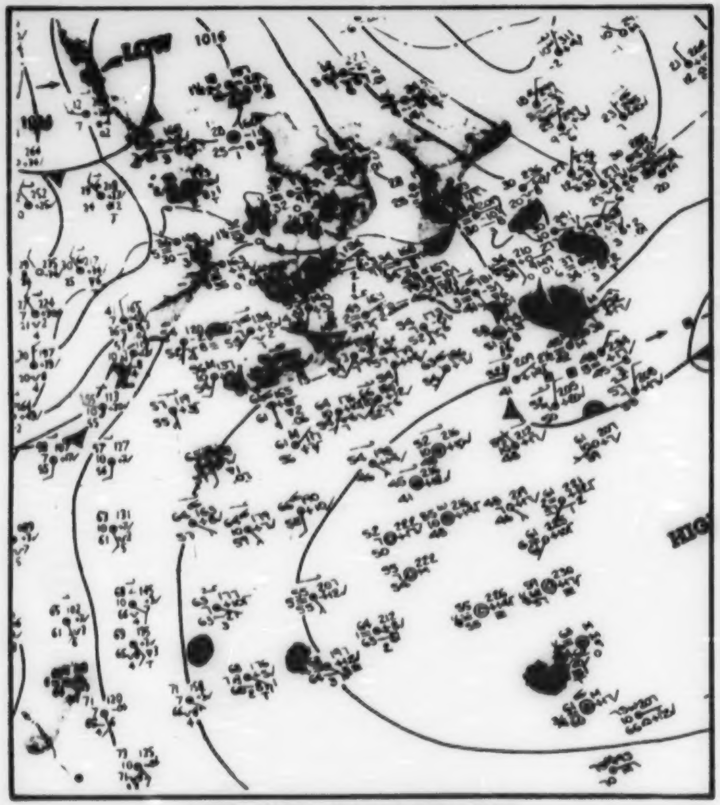
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, MARCH 8, 1974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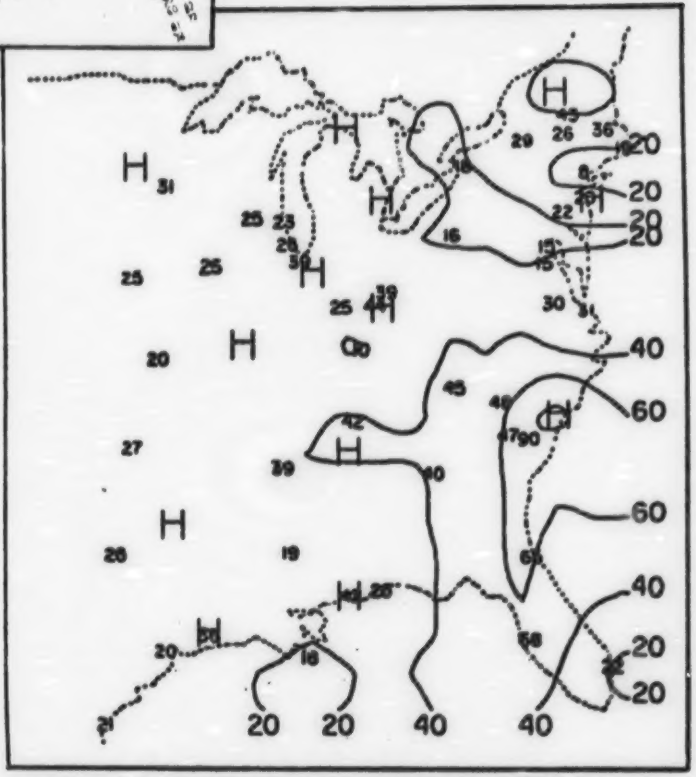
1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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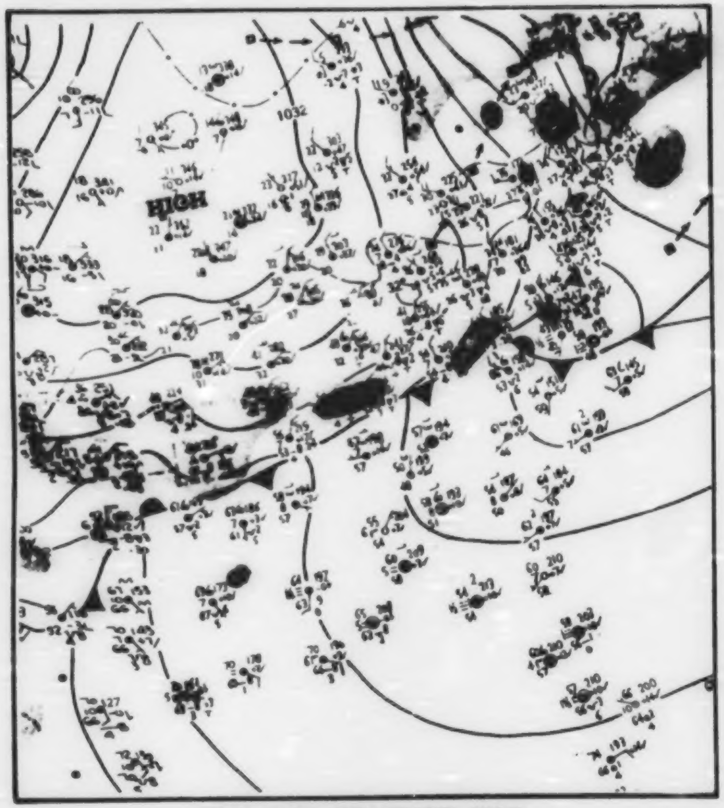
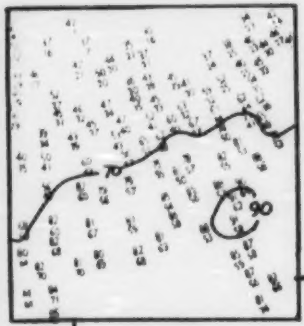
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, MARCH 9, 1974



1200 GMT WEATHER MAP



MAXIMUM-
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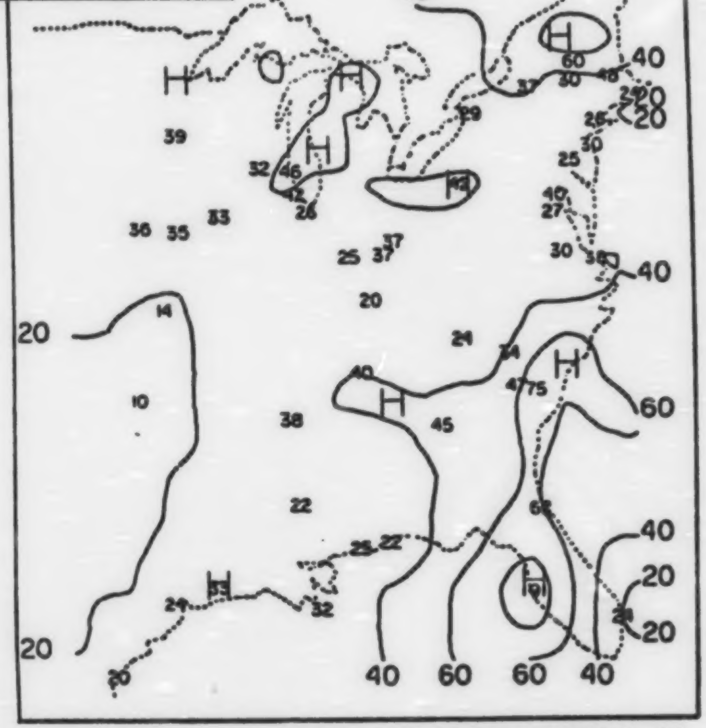
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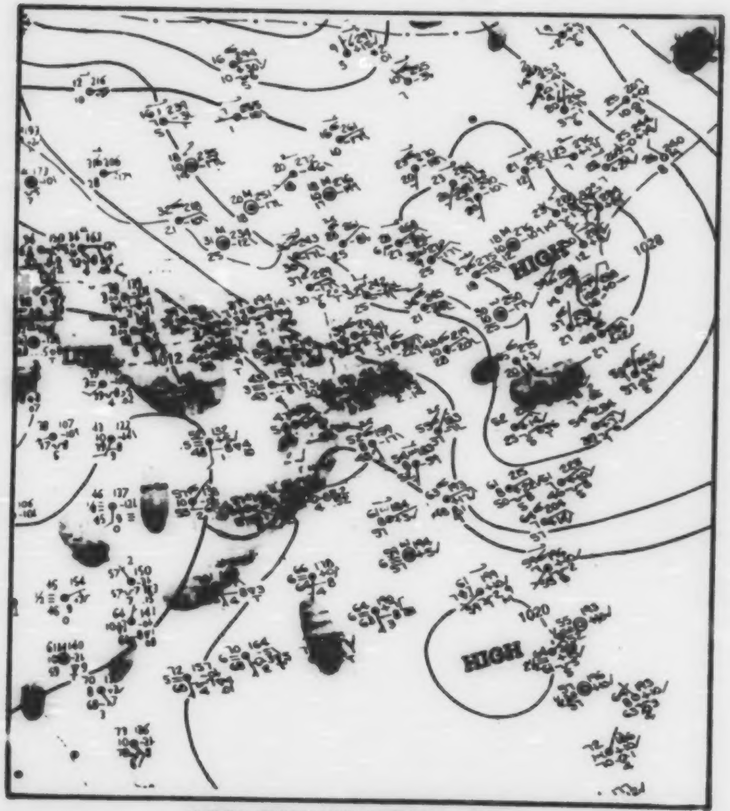
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, MARCH 10, 1974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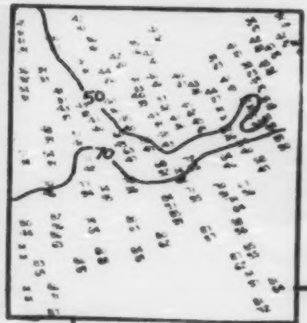
1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
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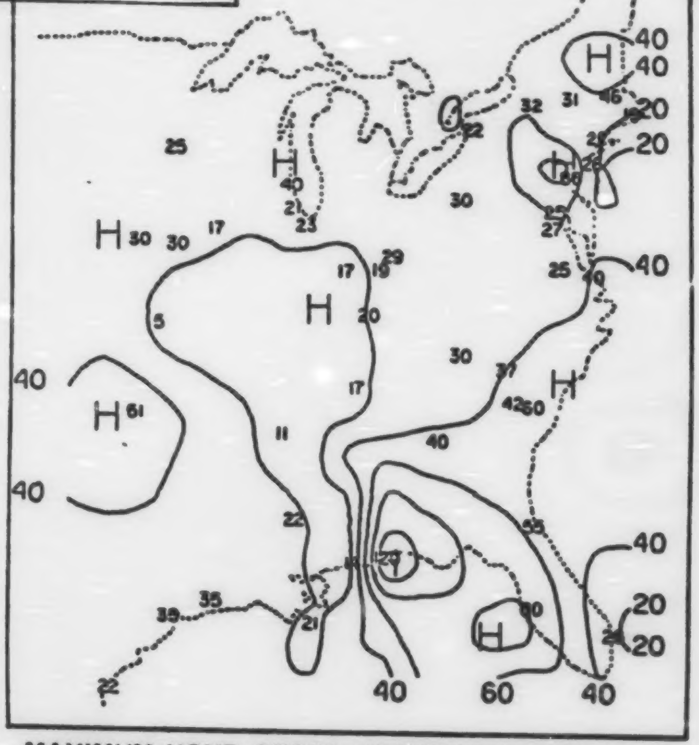
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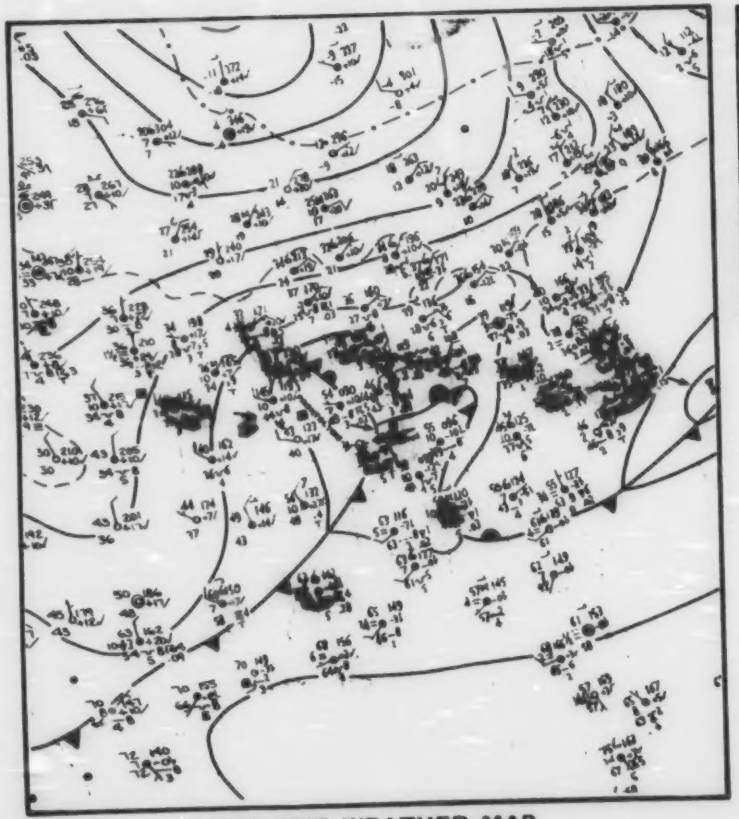
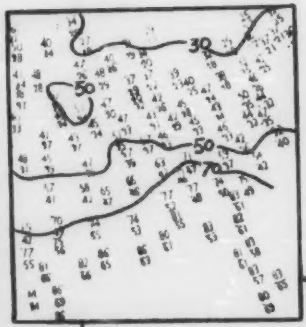
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

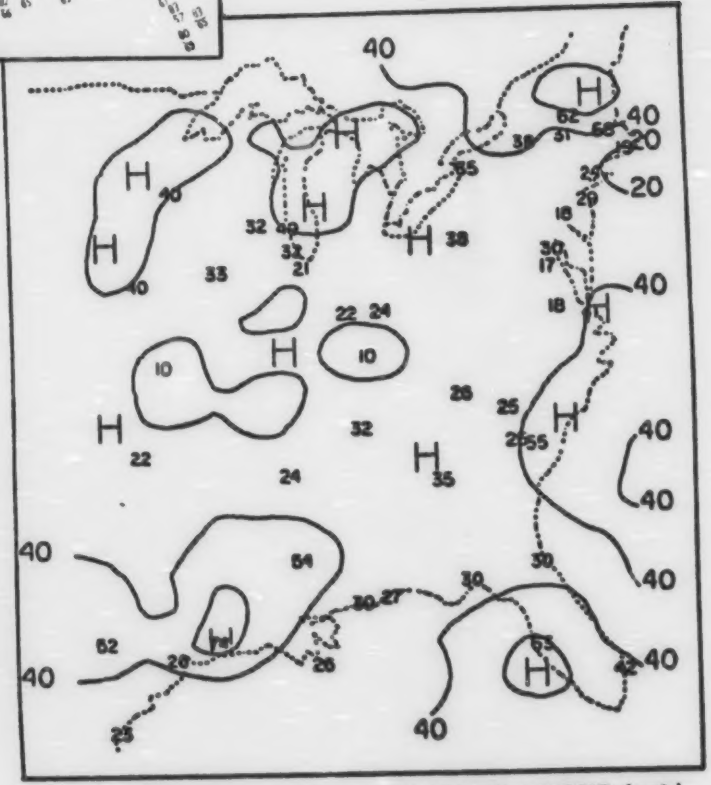
MONDAY, MARCH 11, 1974



1200 GMT WEATHER MAP



MAXIMUM-MINIMUM TEMPERATURE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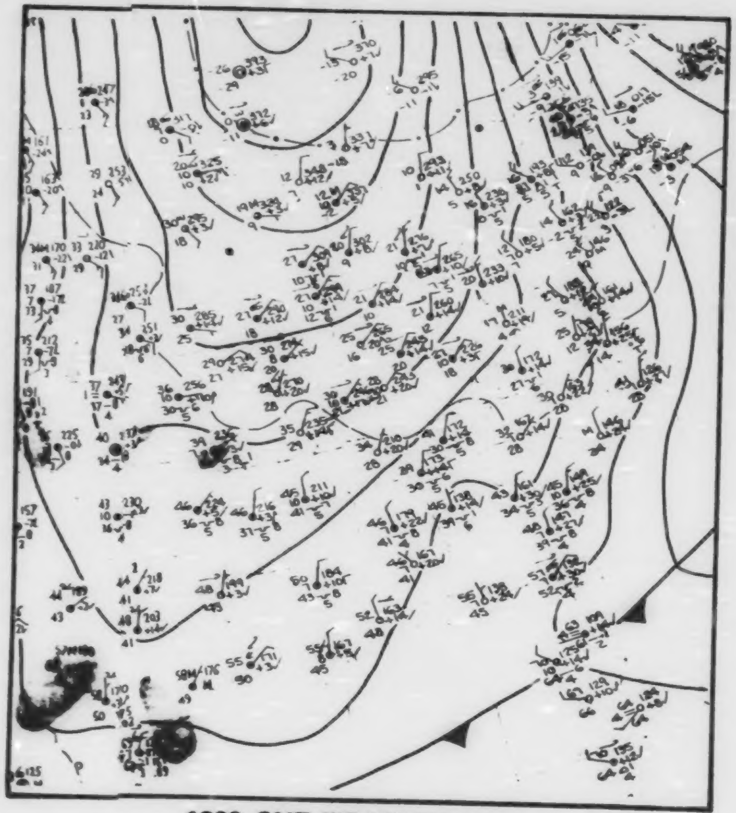
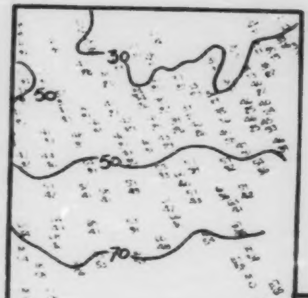
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

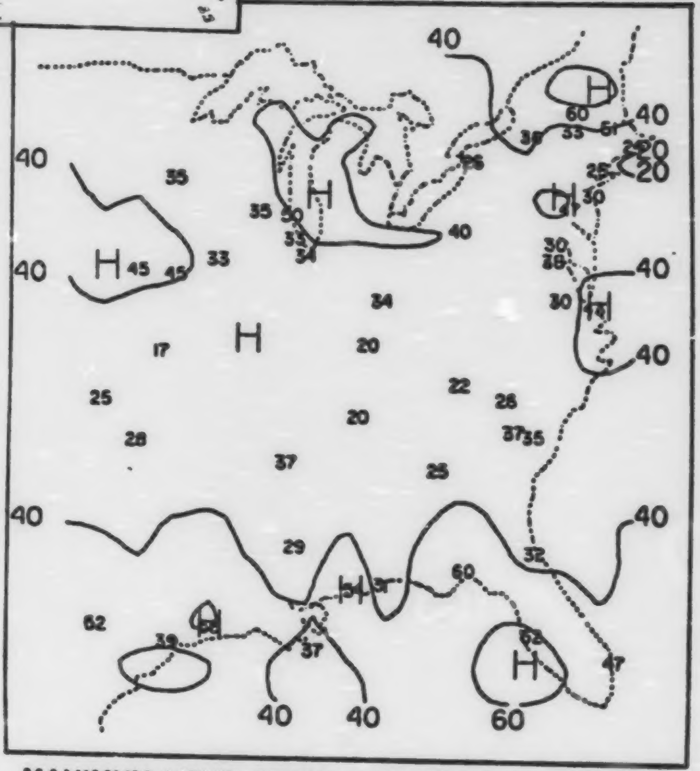
TUESDAY, MARCH 12, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE



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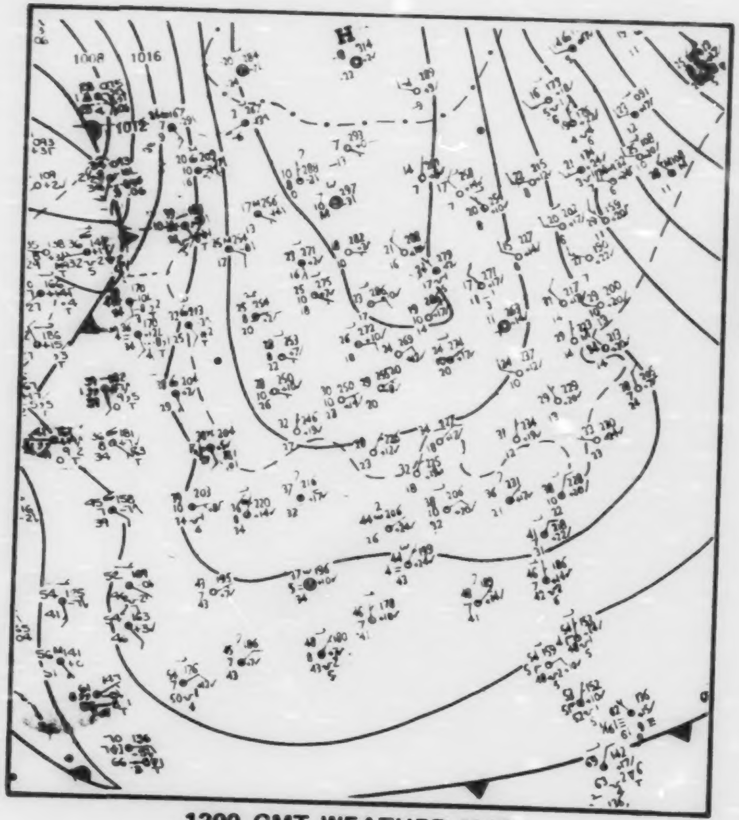
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, MARCH 13, 1974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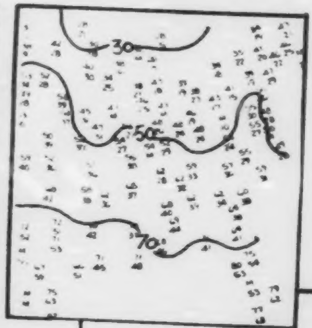
1200 GMT WEATHER MAP



MAXIMUM-
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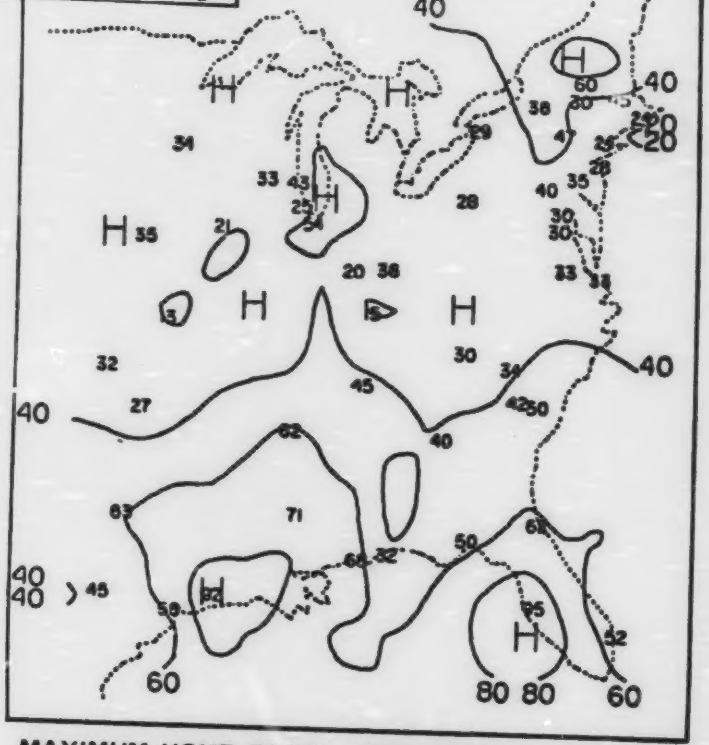
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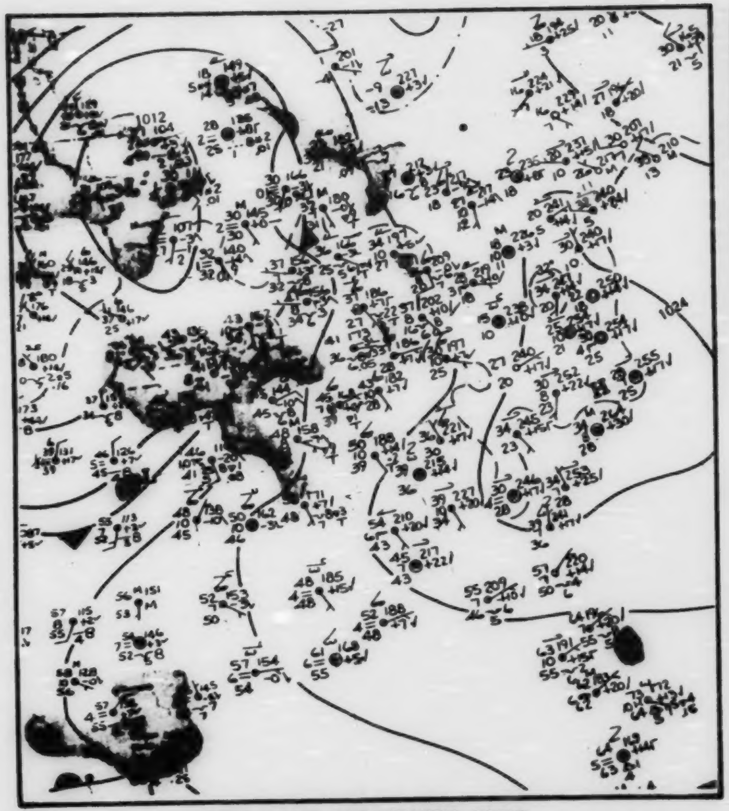
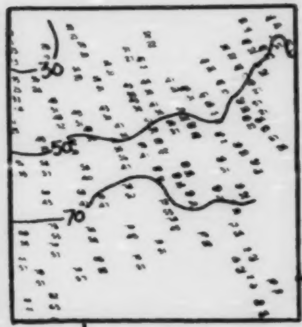
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, MARCH 14, 1974



1200 GMT WEATHER MAP



MAXIMUM-
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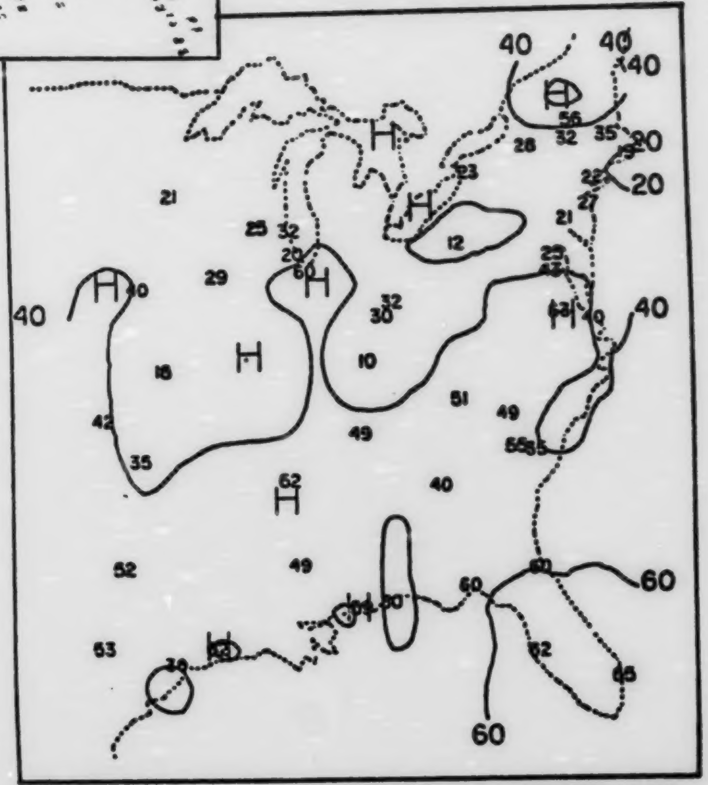
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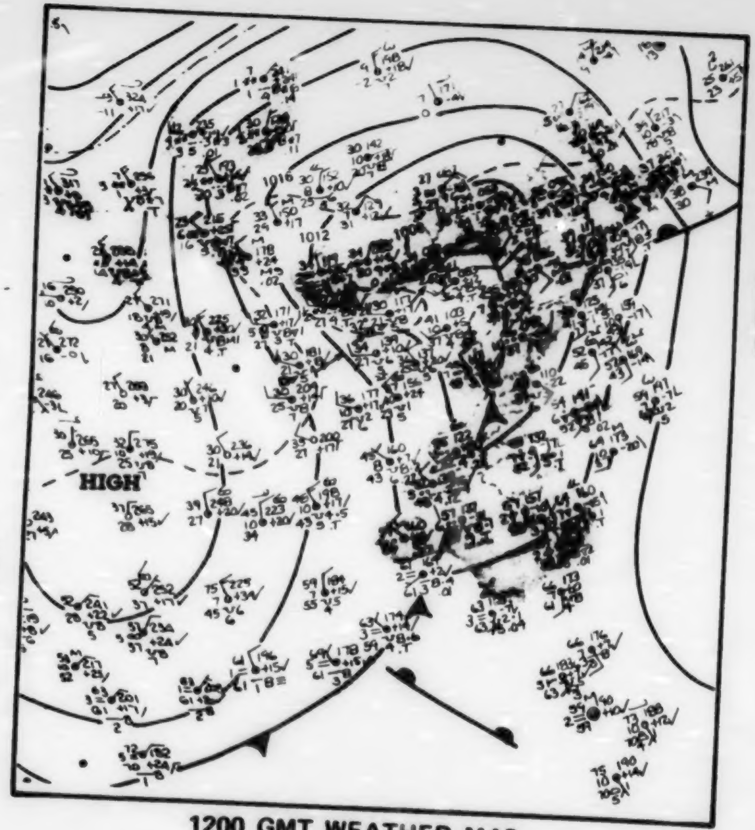
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, MARCH 15, 1974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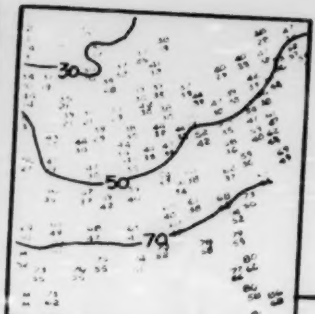
1200 GMT WEATHER MAP



MAXIMUM-
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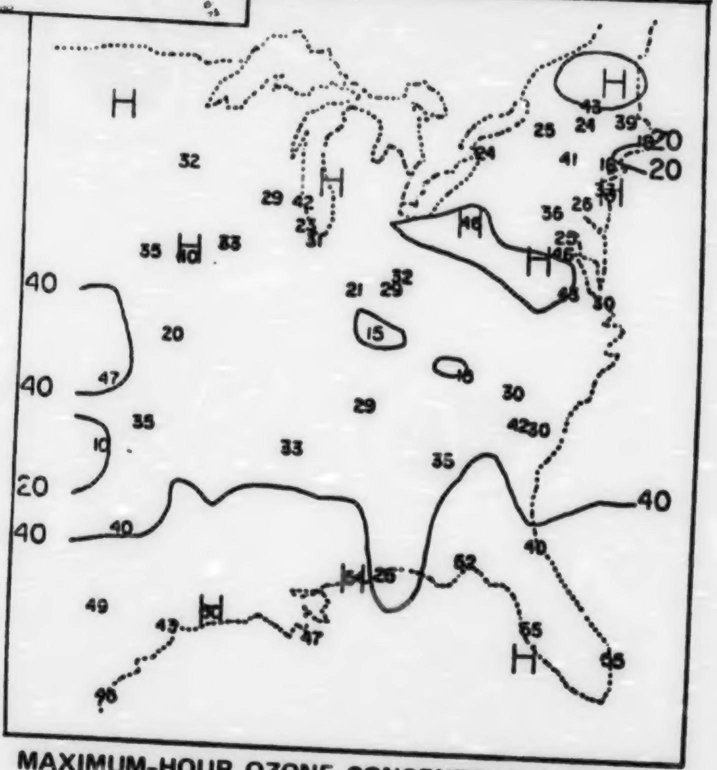
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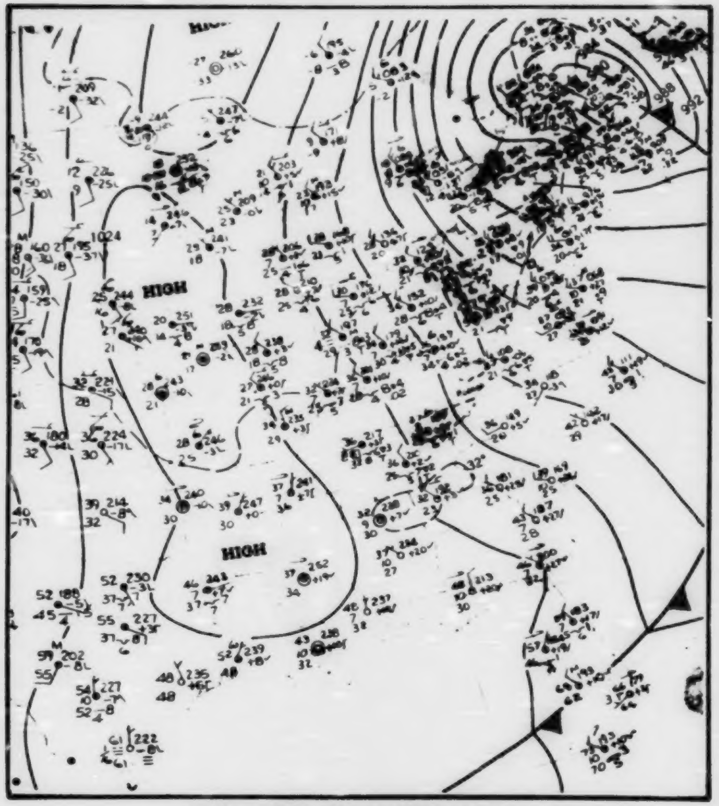
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, MARCH 16, 1974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1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
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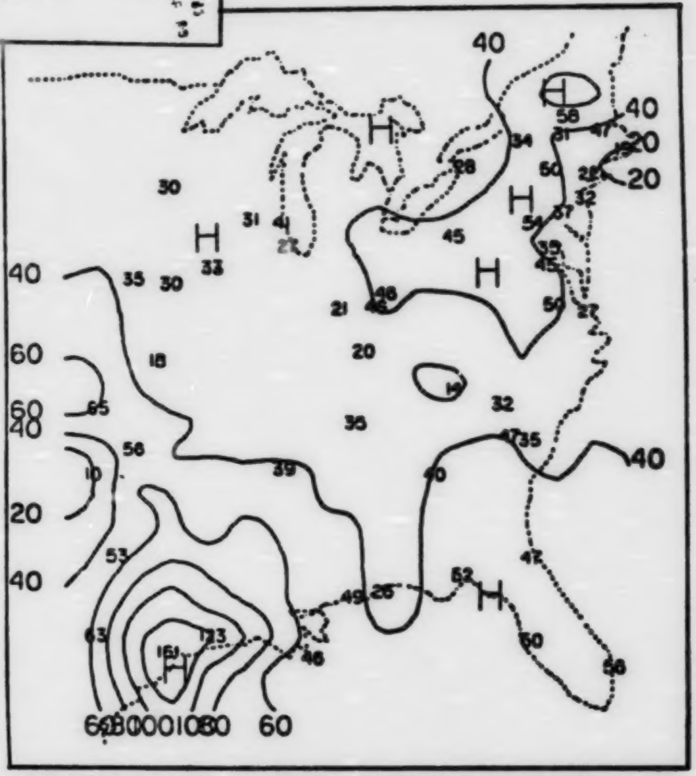
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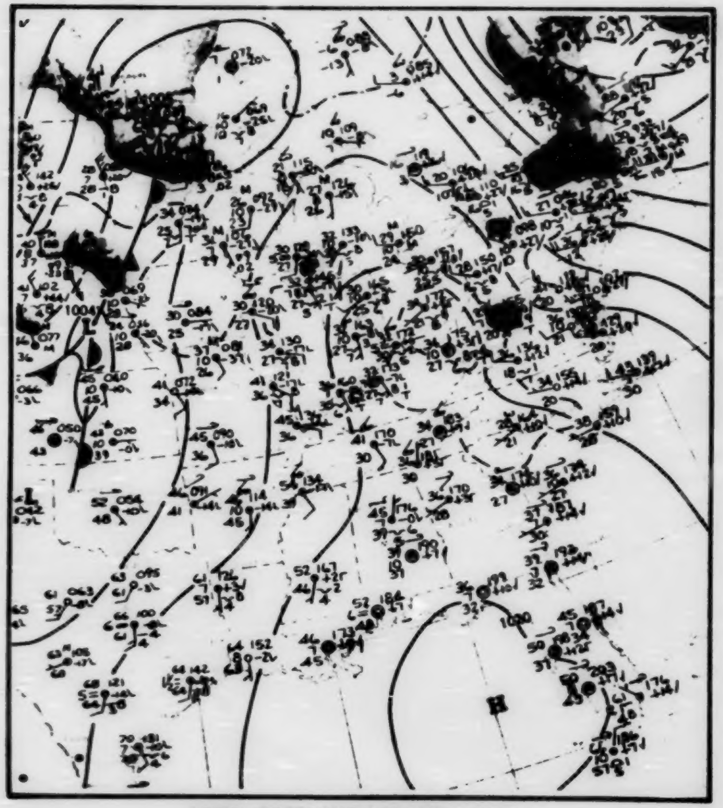
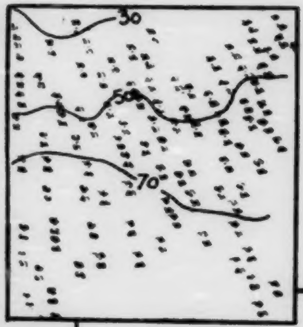
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, MARCH 17, 1974



1200 GMT WEATHER MAP



MAXIMUM-
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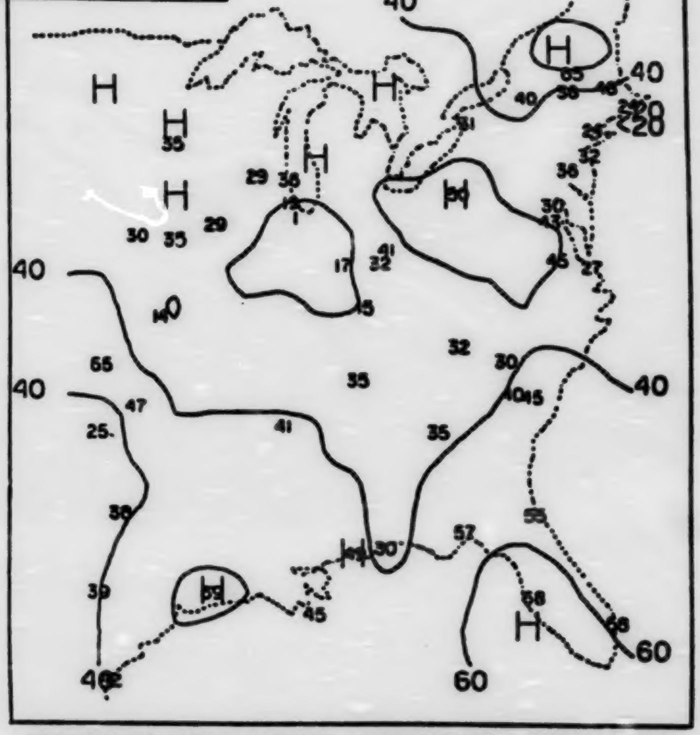
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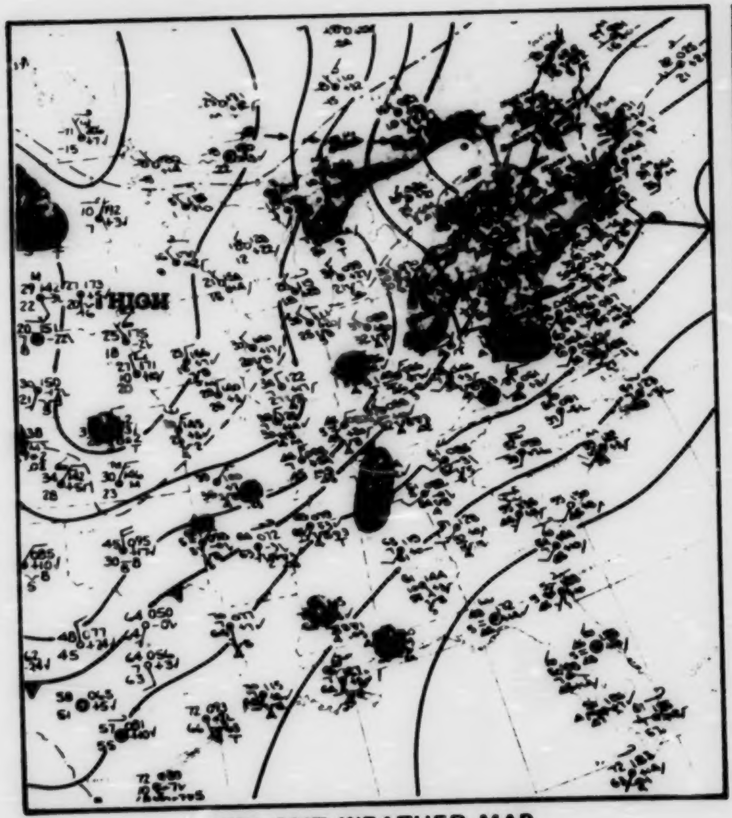
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, MARCH 18, 1974



1200 GMT WEATHER MAP

MAXIMUM-
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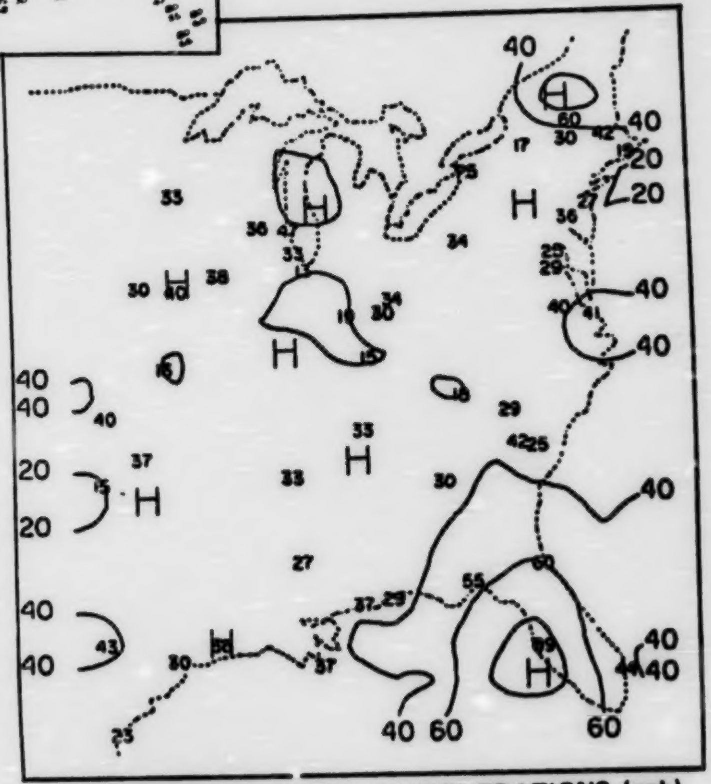
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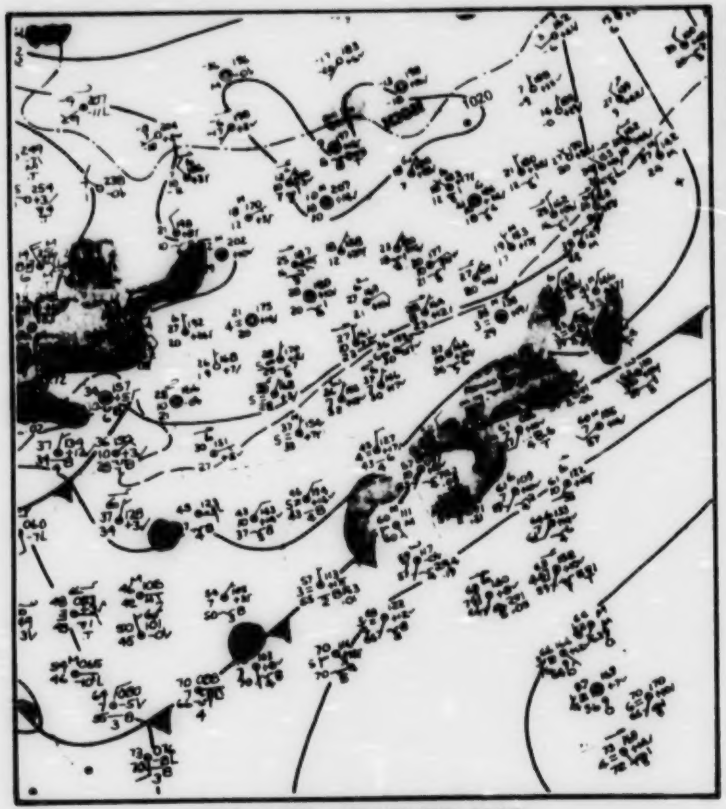
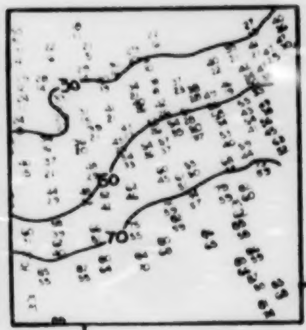
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

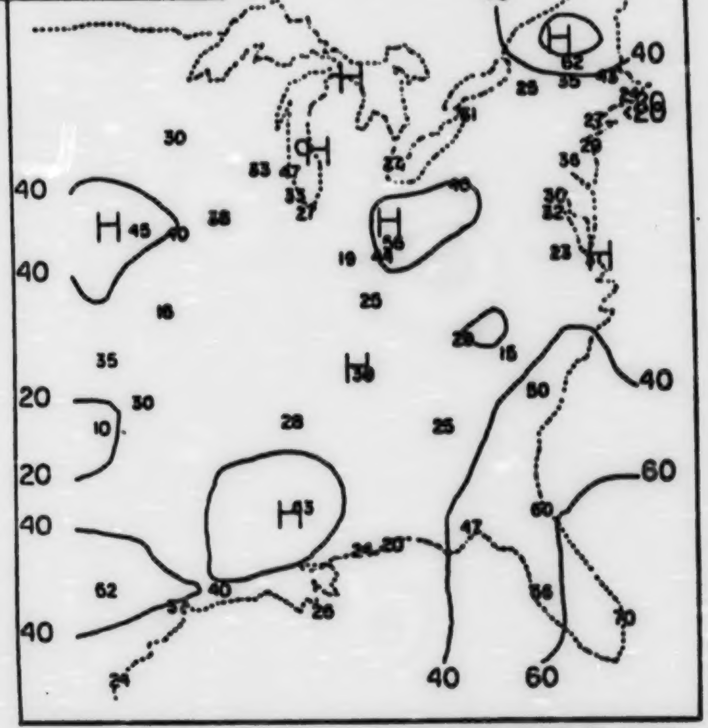
TUESDAY, MARCH 19, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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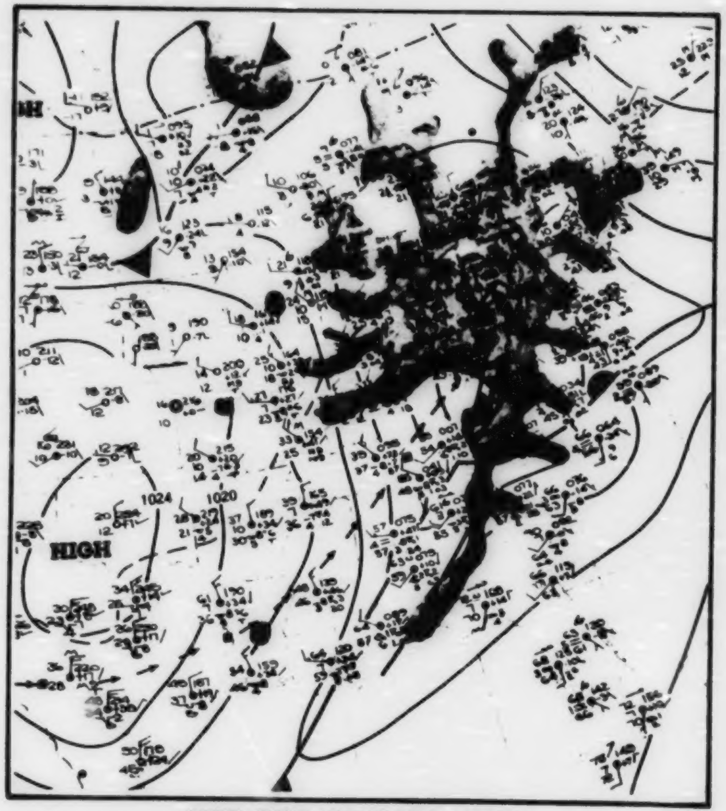
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, MARCH 20, 1974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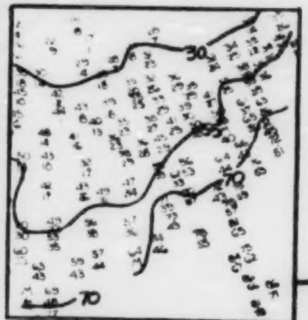
1200 GMT WEATHER MAP



MAXIMUM-
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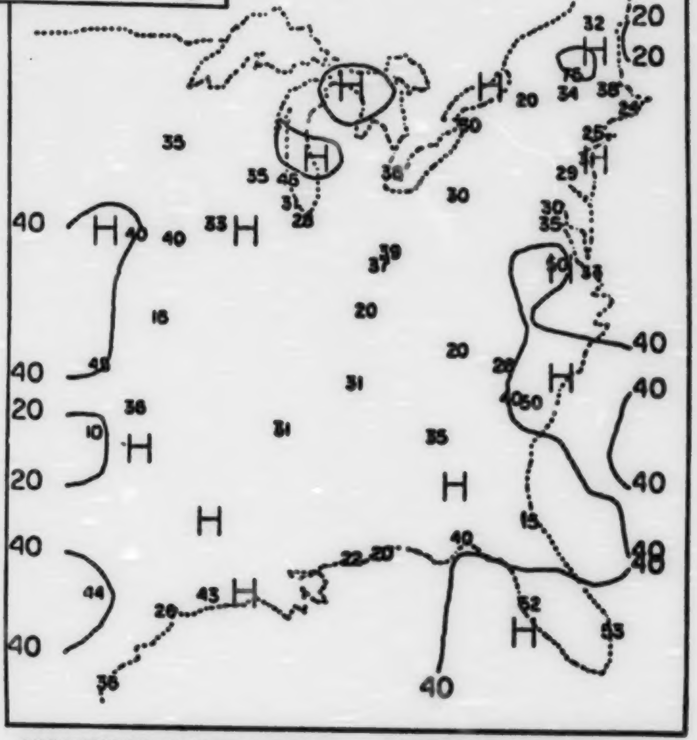
TEMPERATURE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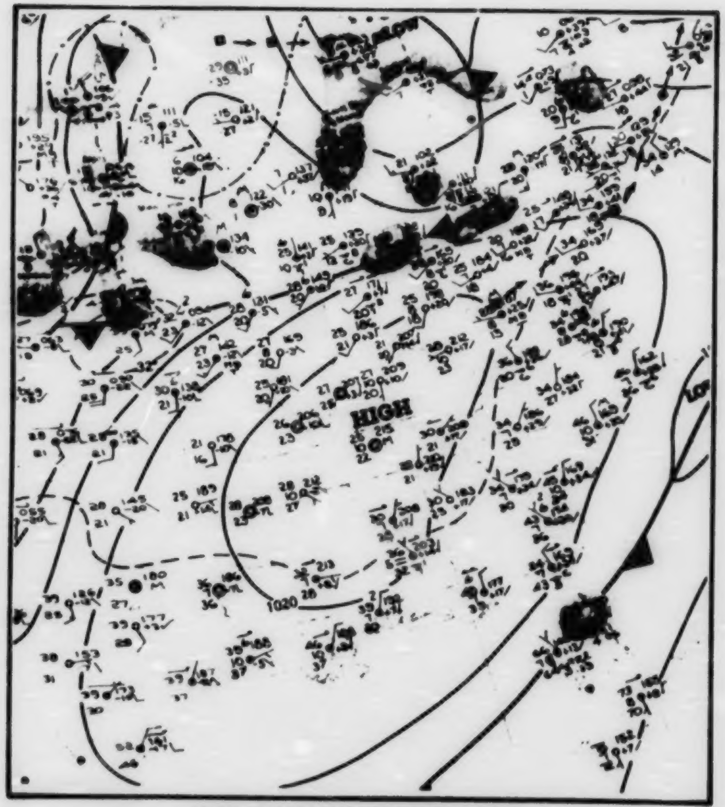
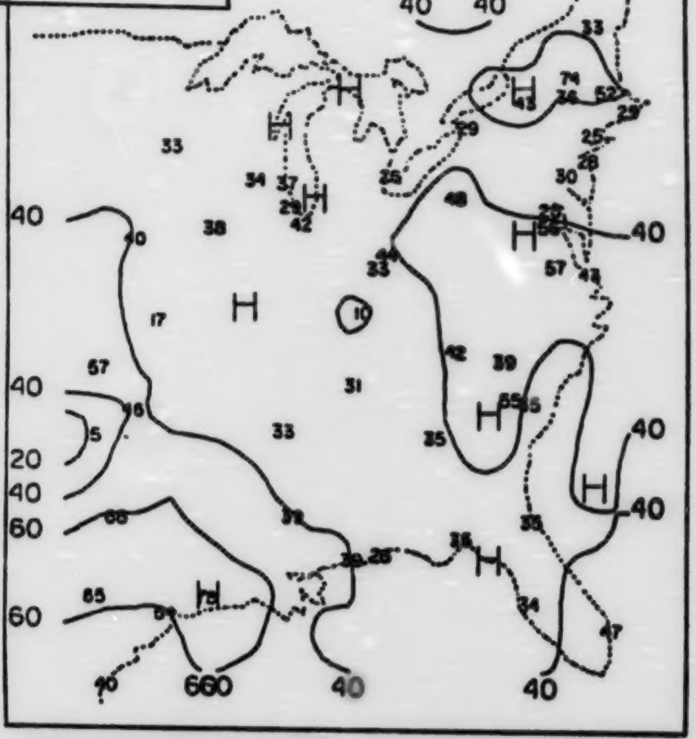
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, MARCH 21, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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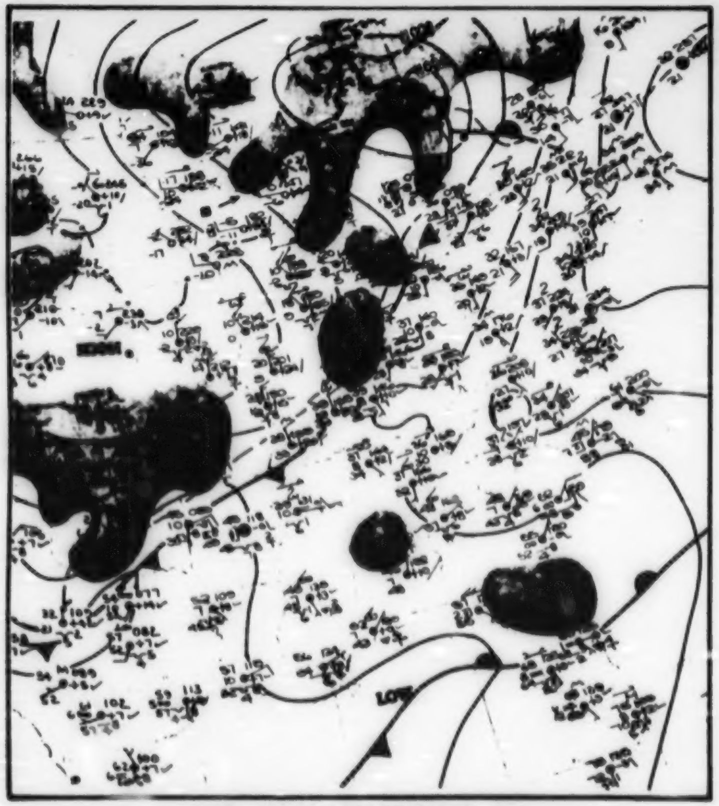
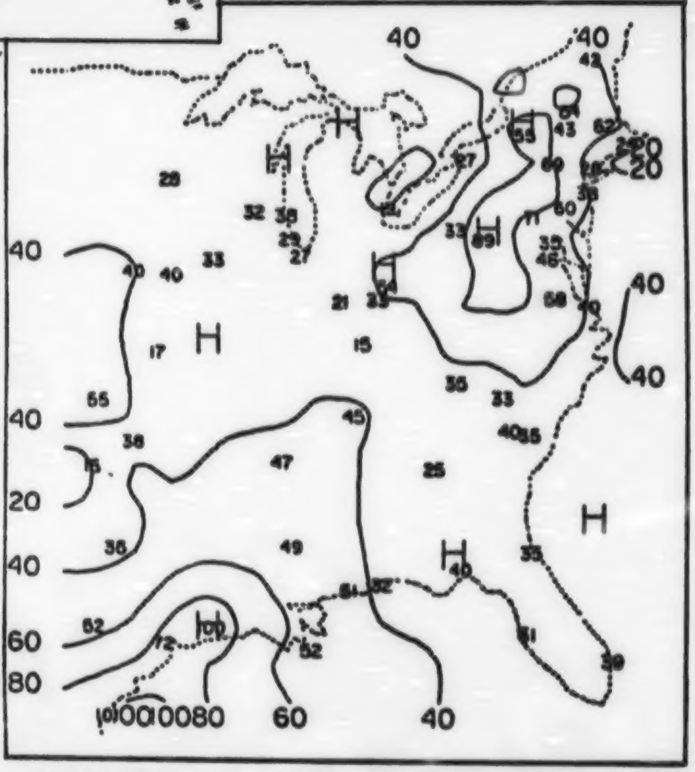
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, MARCH 22, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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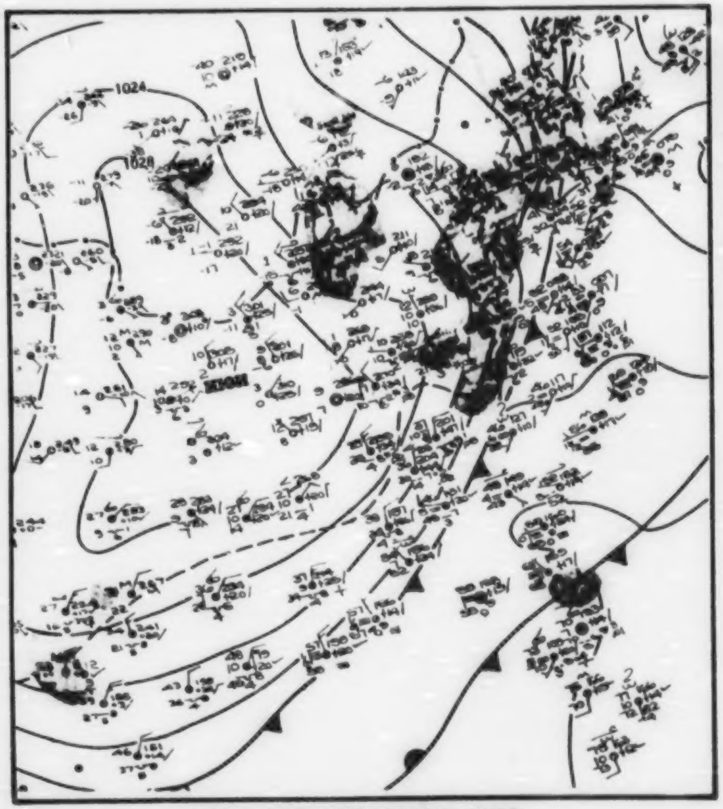
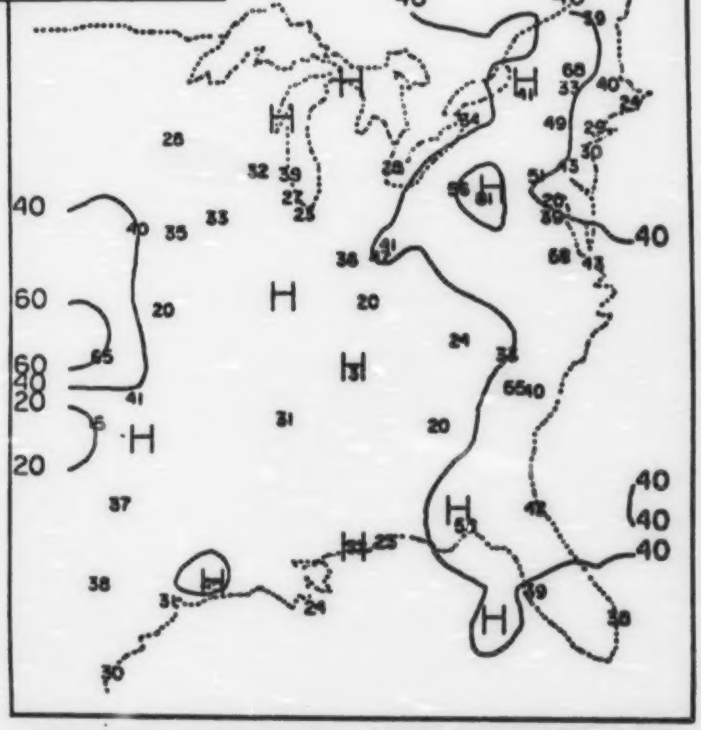
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, MARCH 23, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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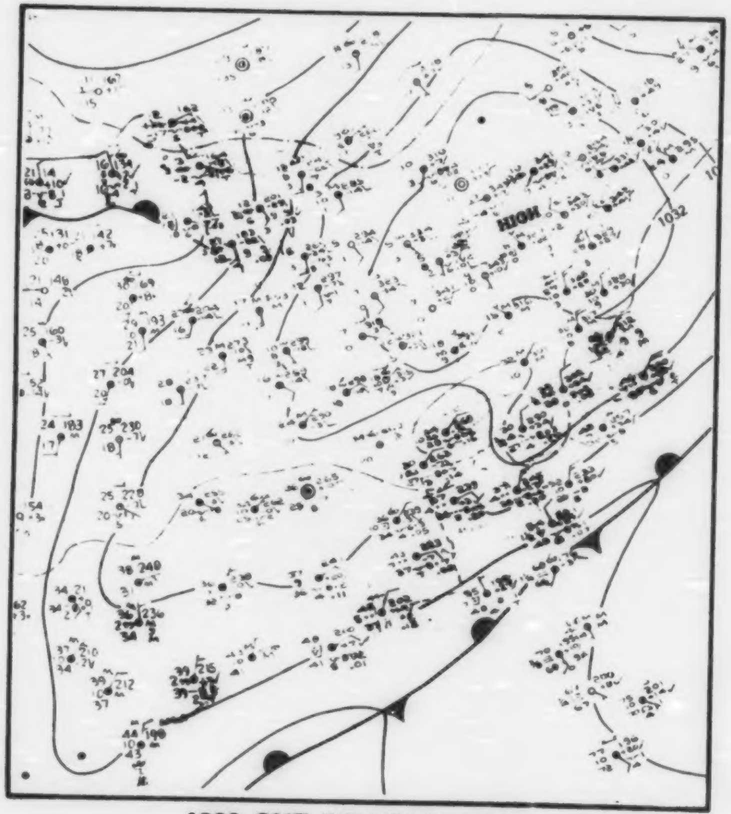
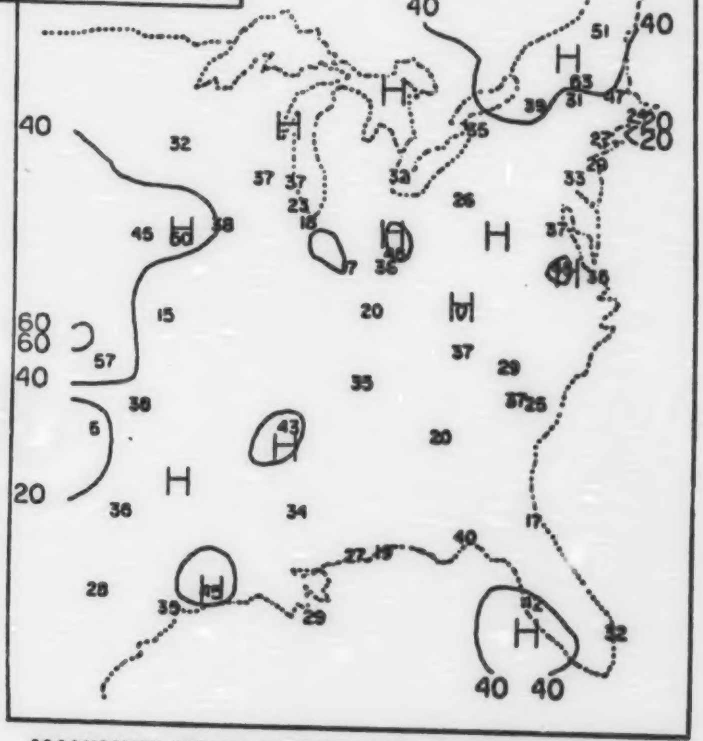
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, MARCH 24, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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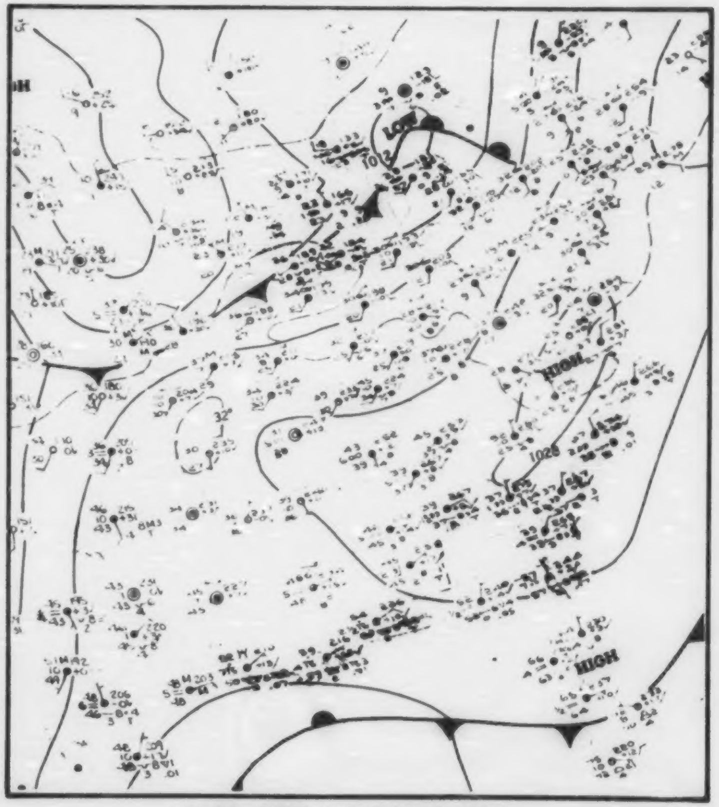
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, MARCH 25, 1974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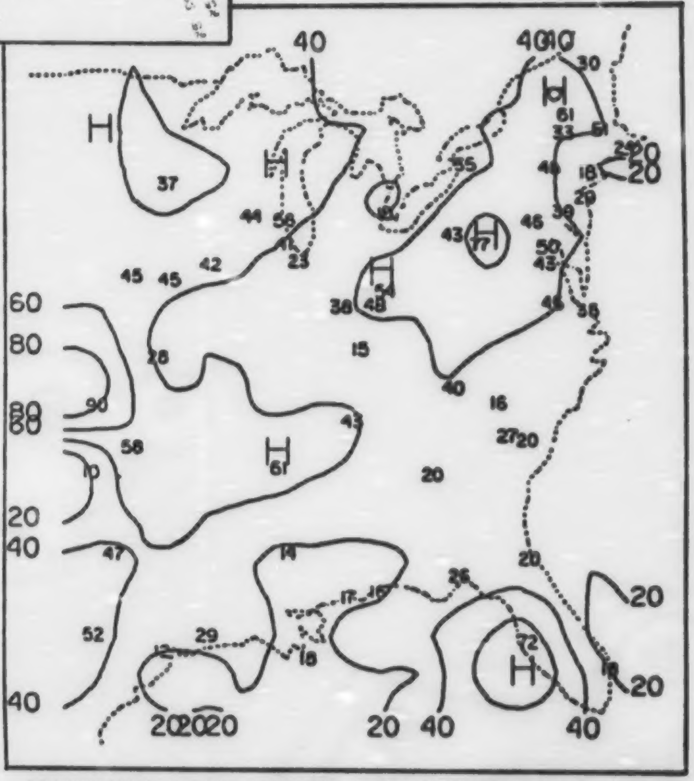
1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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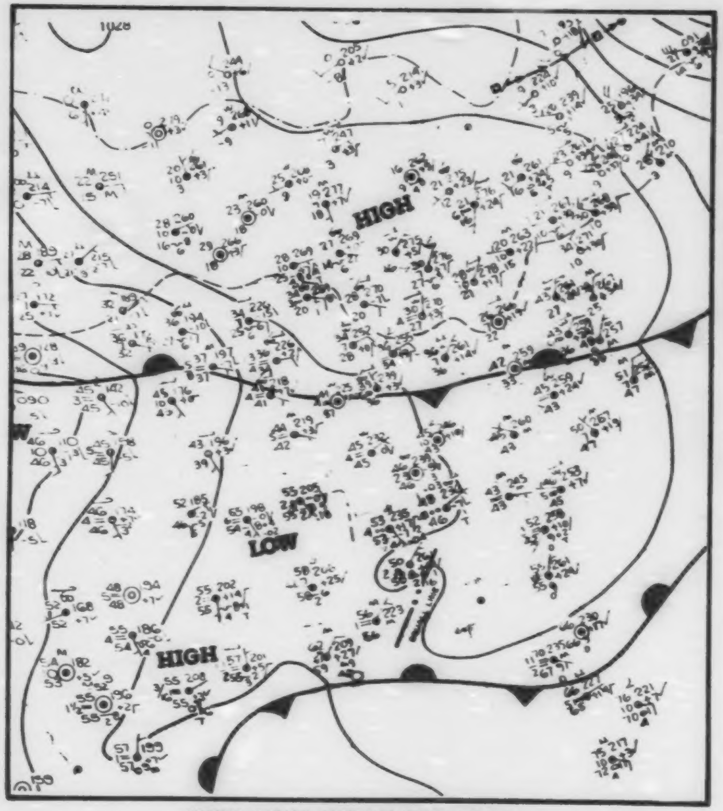
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, MARCH 26, 1974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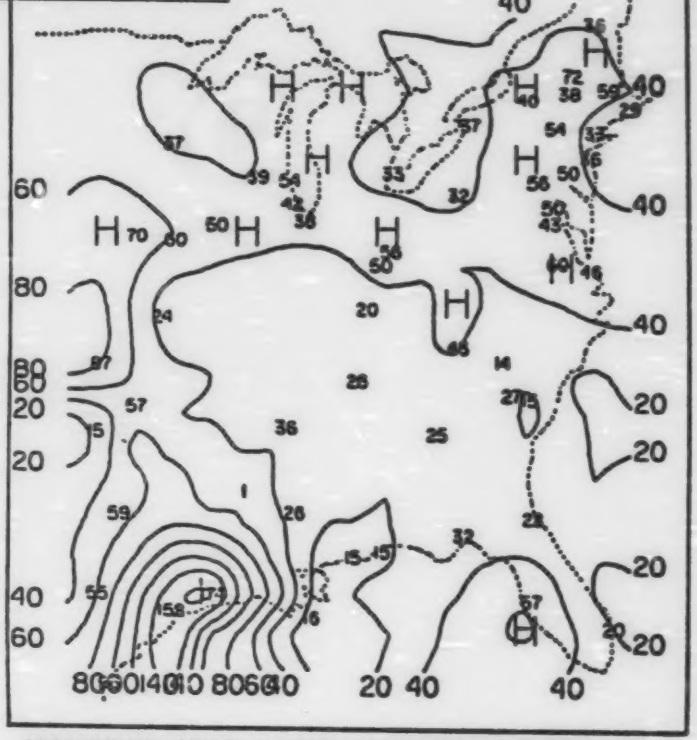
1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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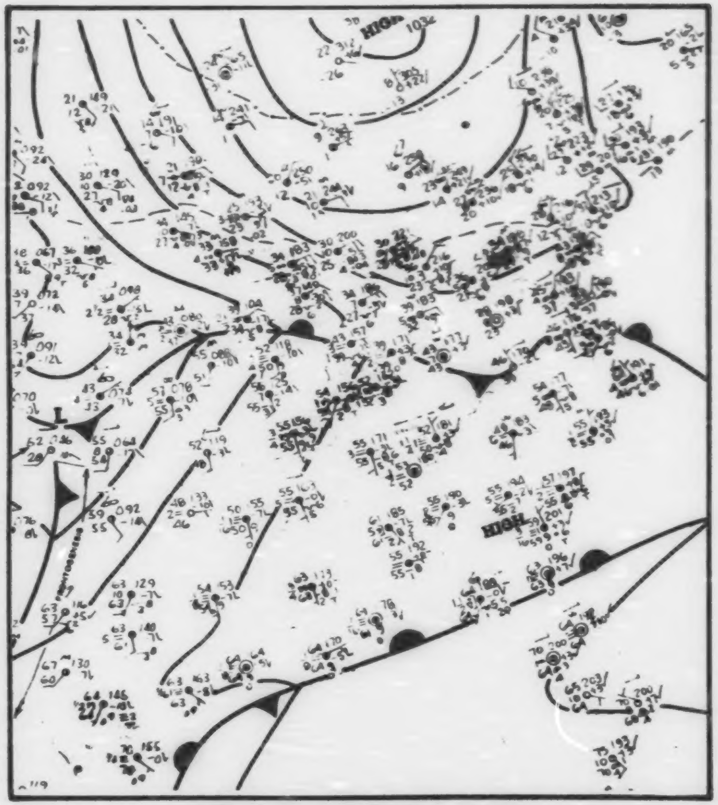
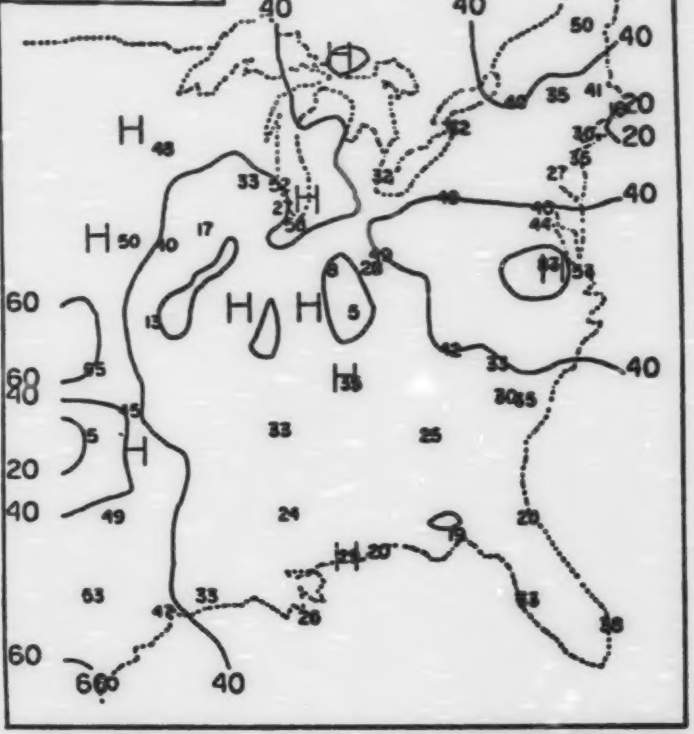
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, MARCH 27, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE



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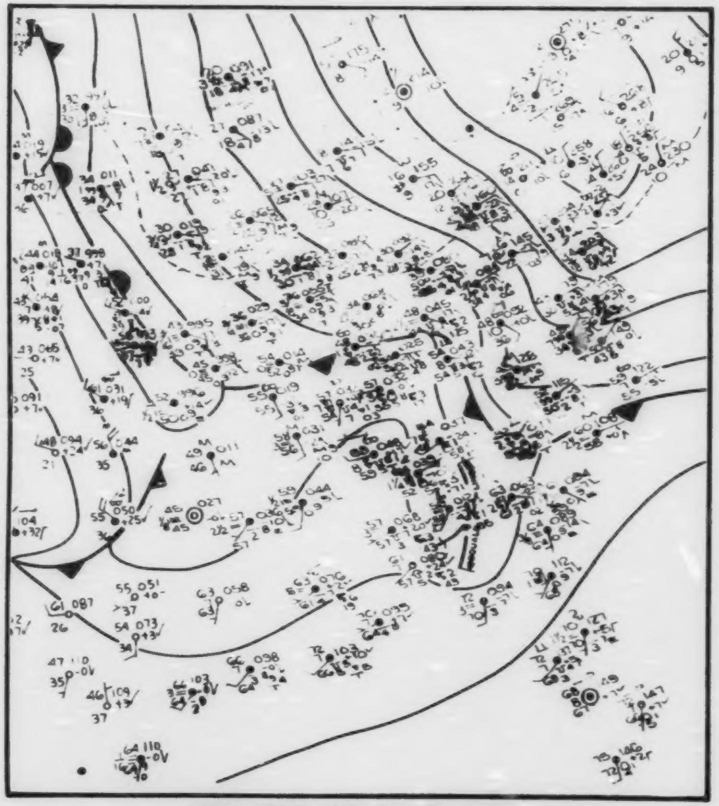
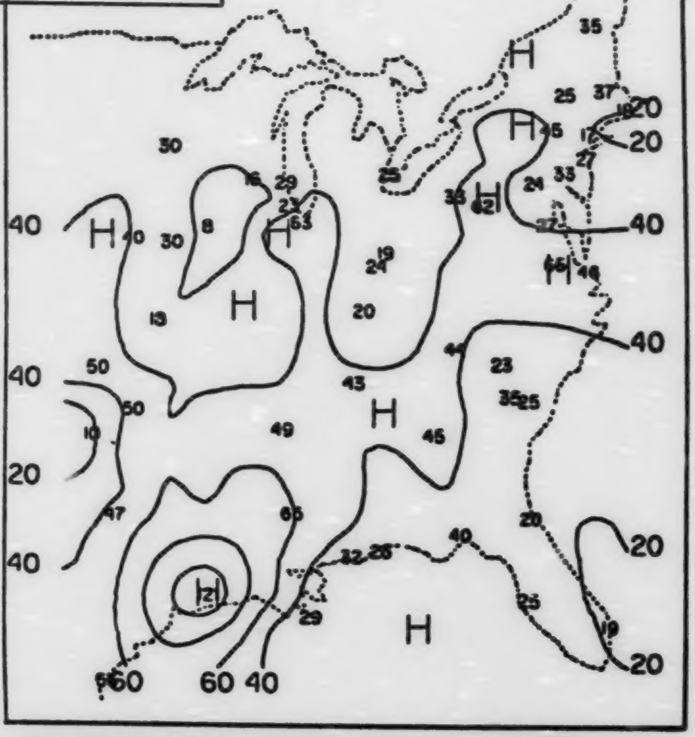
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, MARCH 28, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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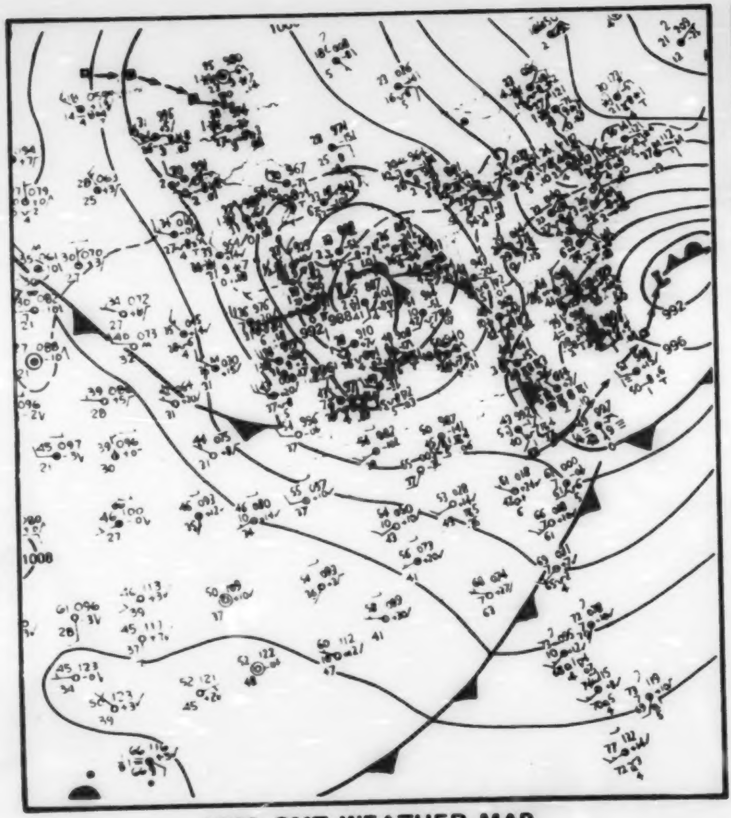
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, MARCH 29, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
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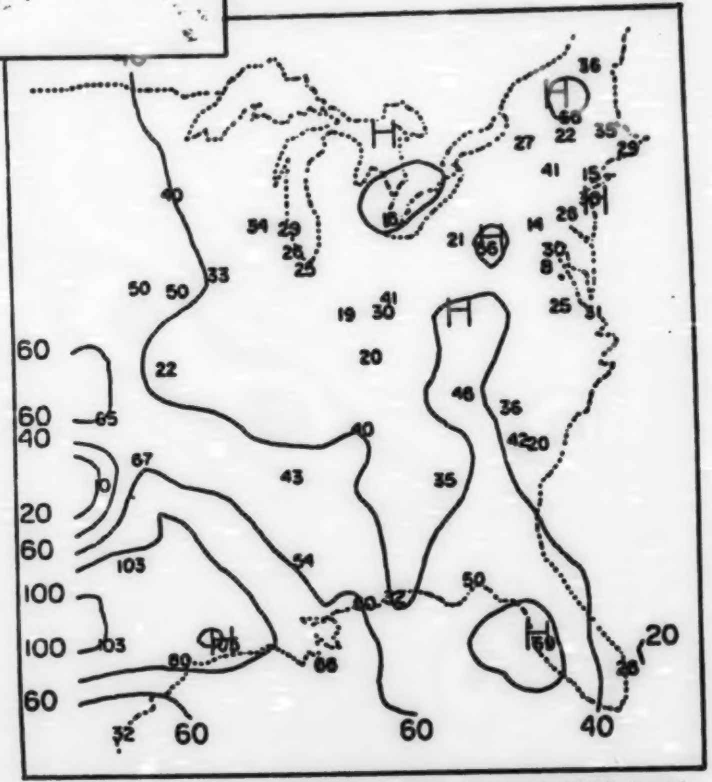
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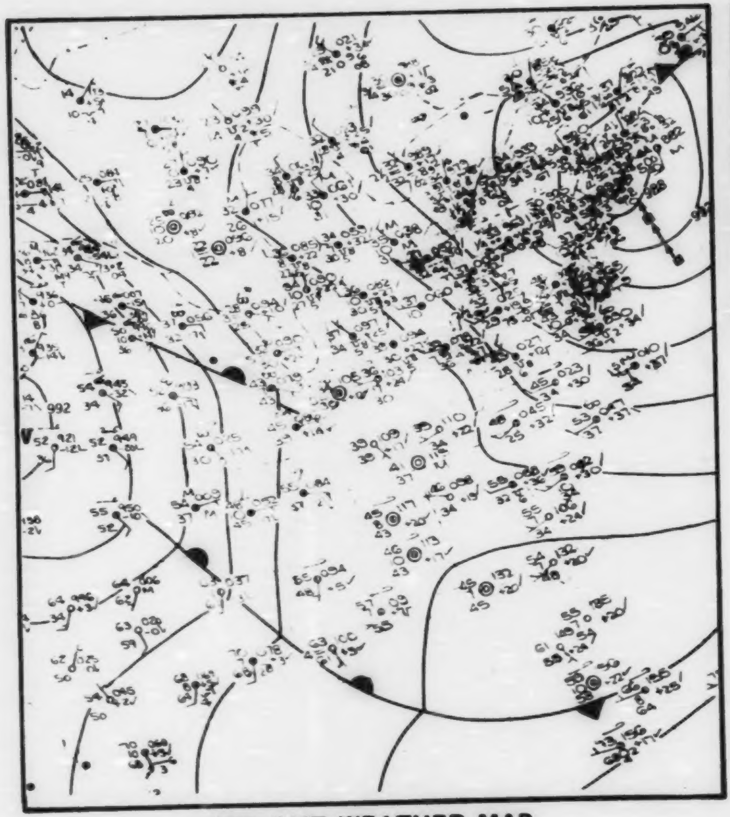
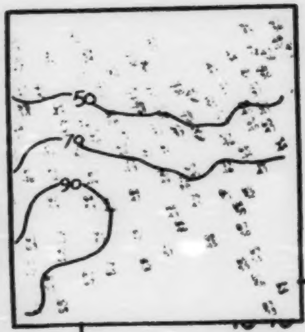
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, MARCH 30, 1974



1200 GMT WEATHER MAP



MAXIMUM-
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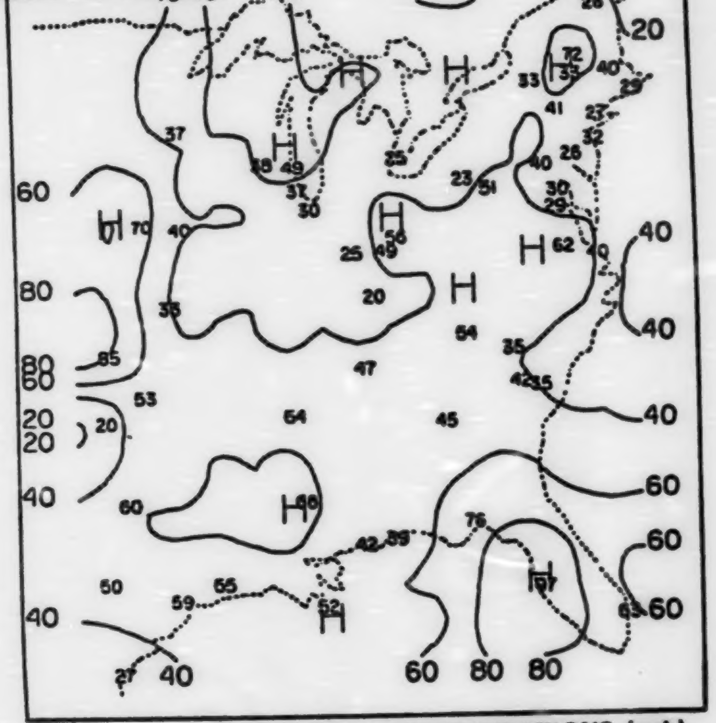
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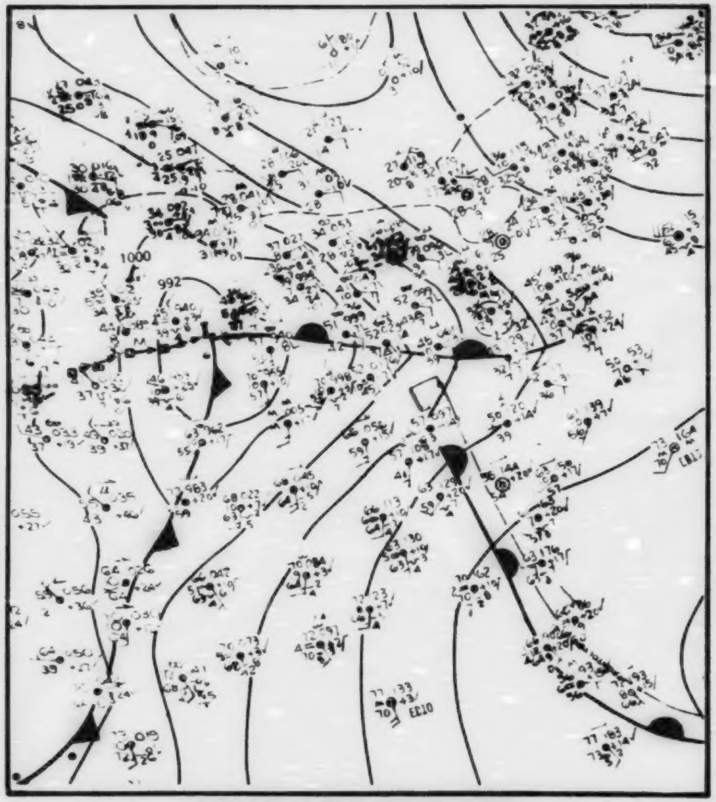
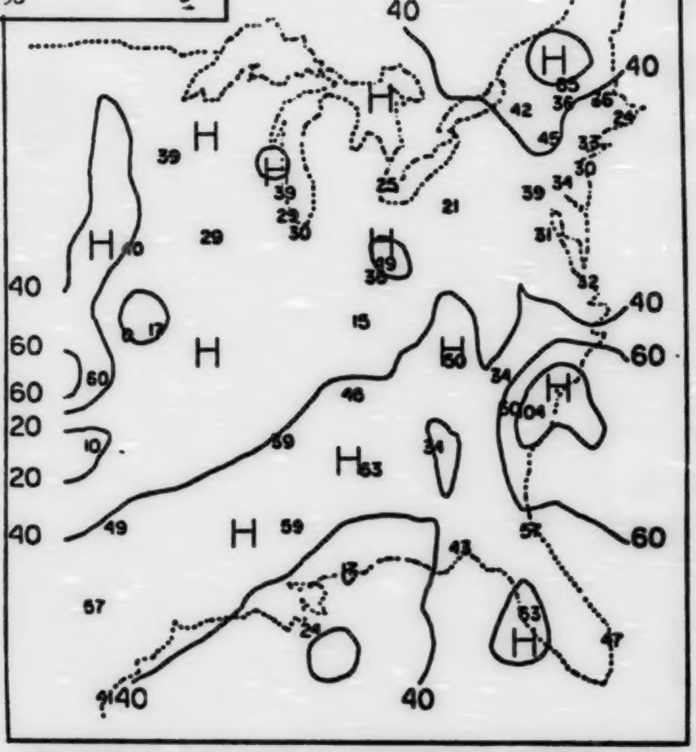
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, MARCH 31, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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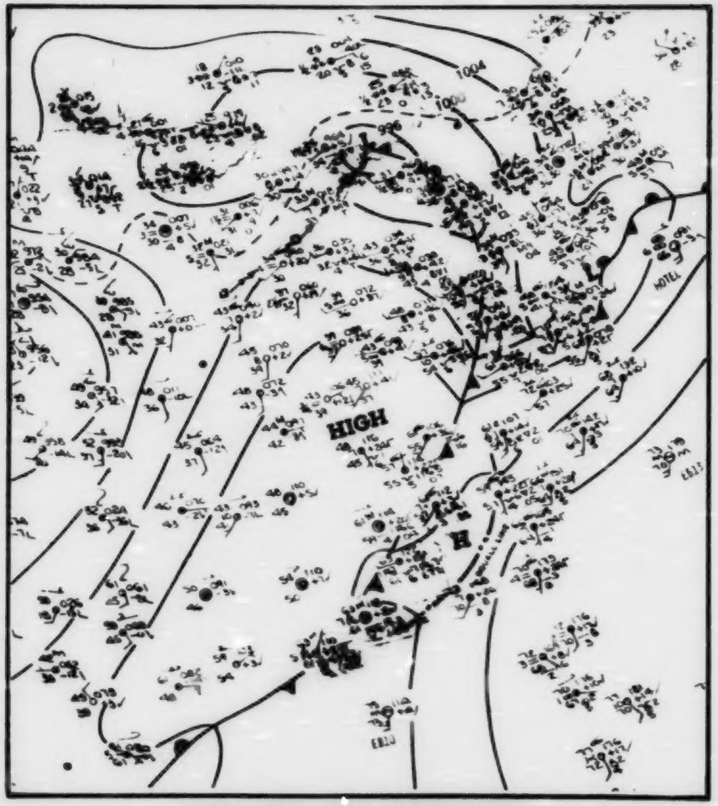
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, APRIL 1, 1974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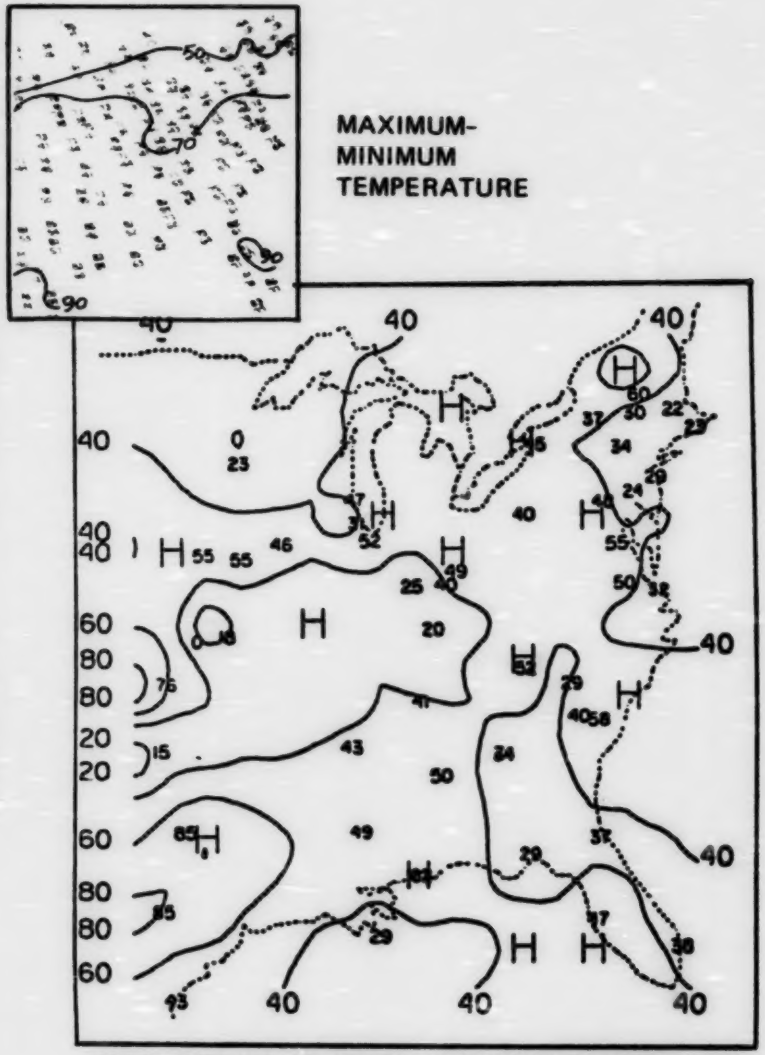
1200 GMT WEATHER MAP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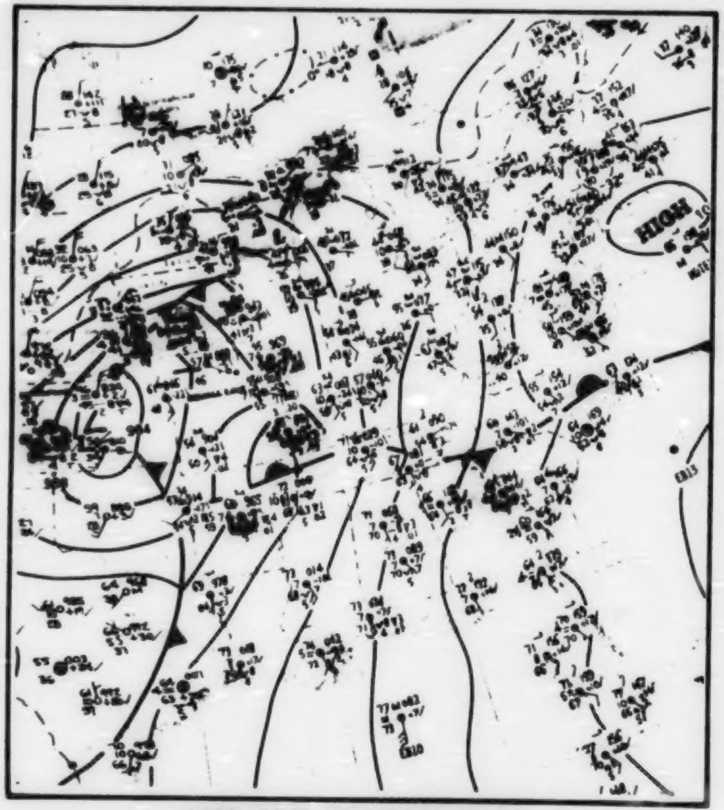
MAXIMUM-MINIMUM TEMPERATURE

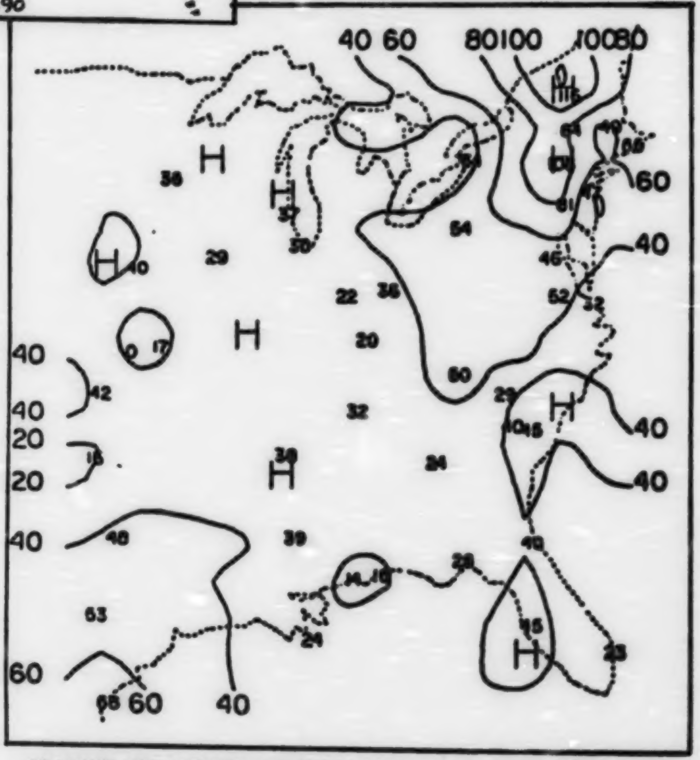
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, APRIL 2, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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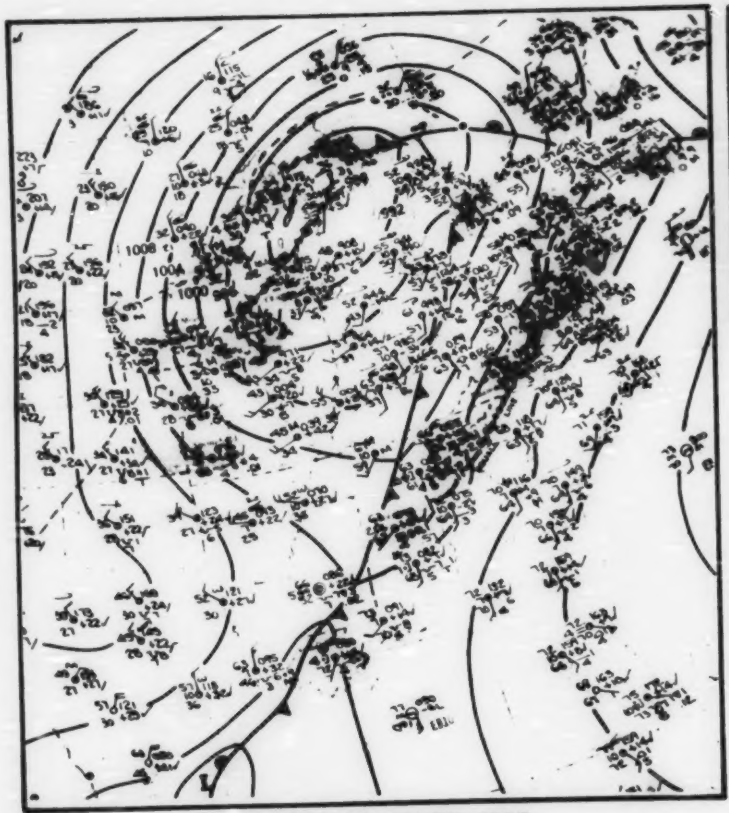
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, APRIL 3, 1974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1200 GMT WEATHER MAP

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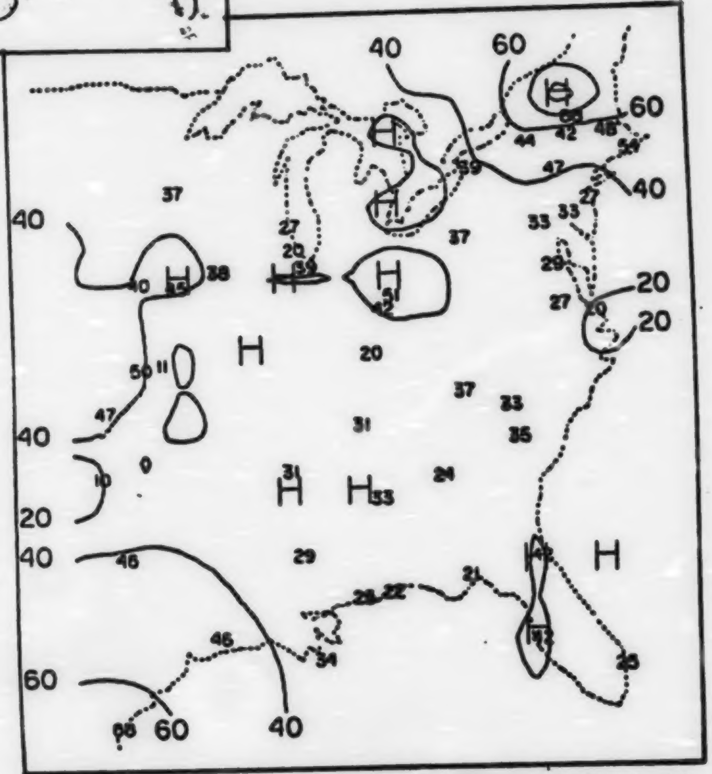
MAXIMUM-
MINIMUM
TEMPERATURE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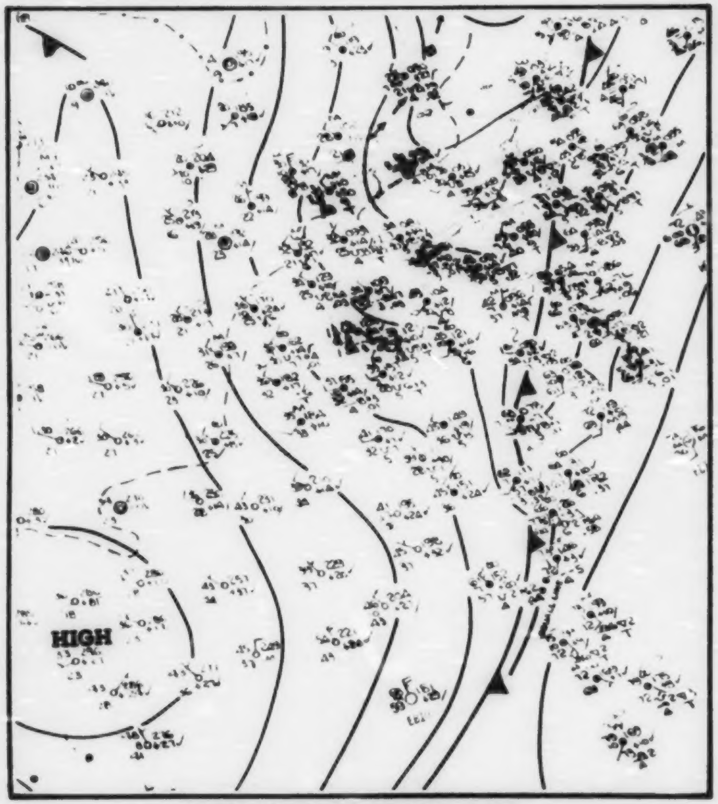
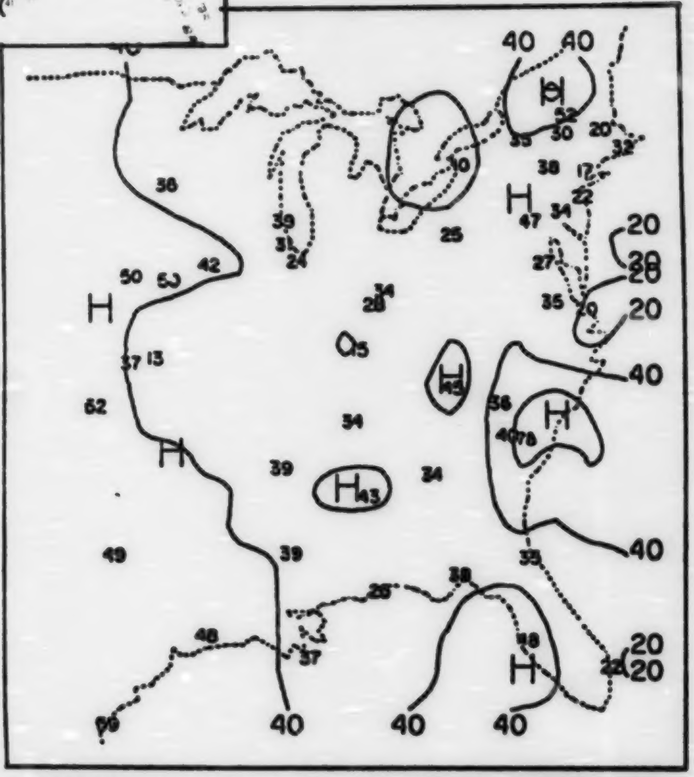
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, APRIL 4, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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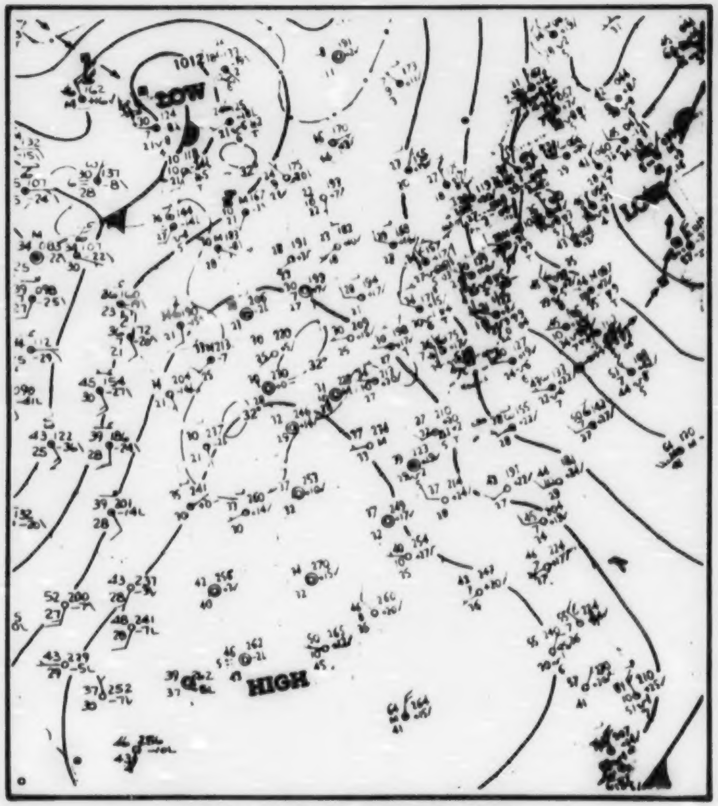
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, APRIL 5, 1974


LOW
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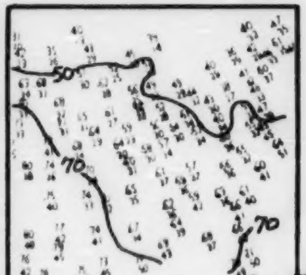
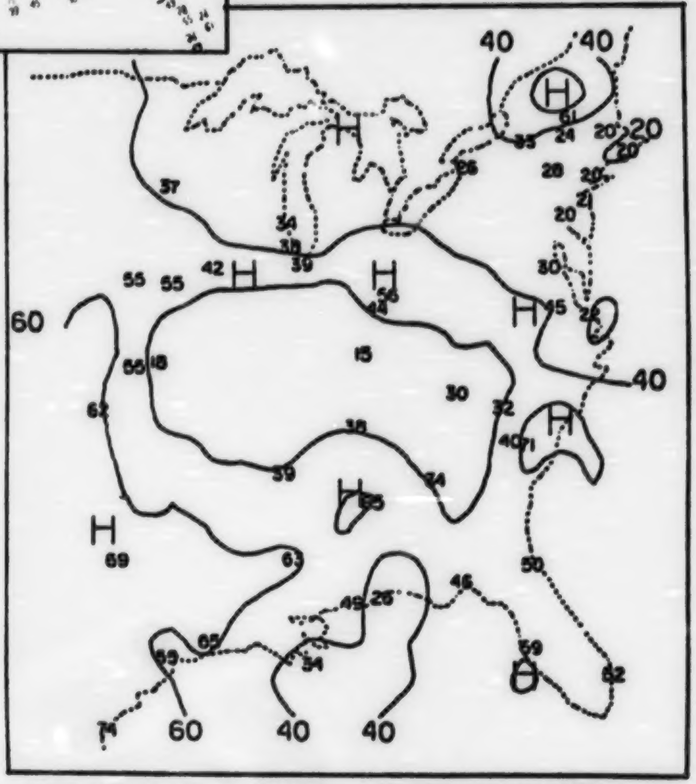
1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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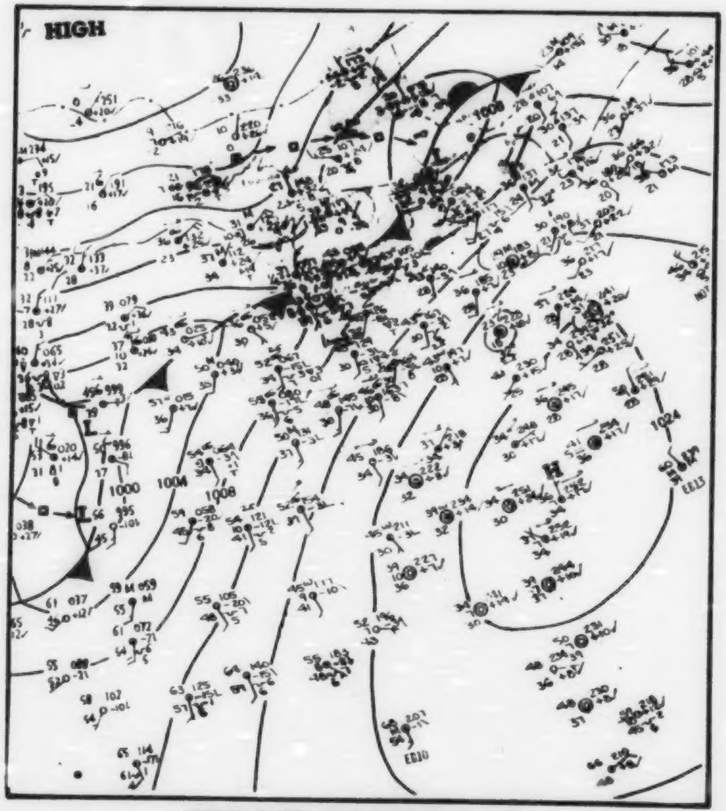
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, APRIL 6, 1974


HIGH
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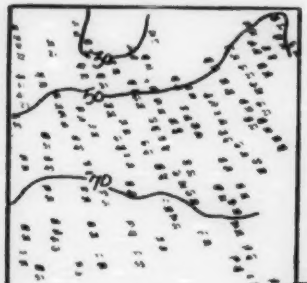
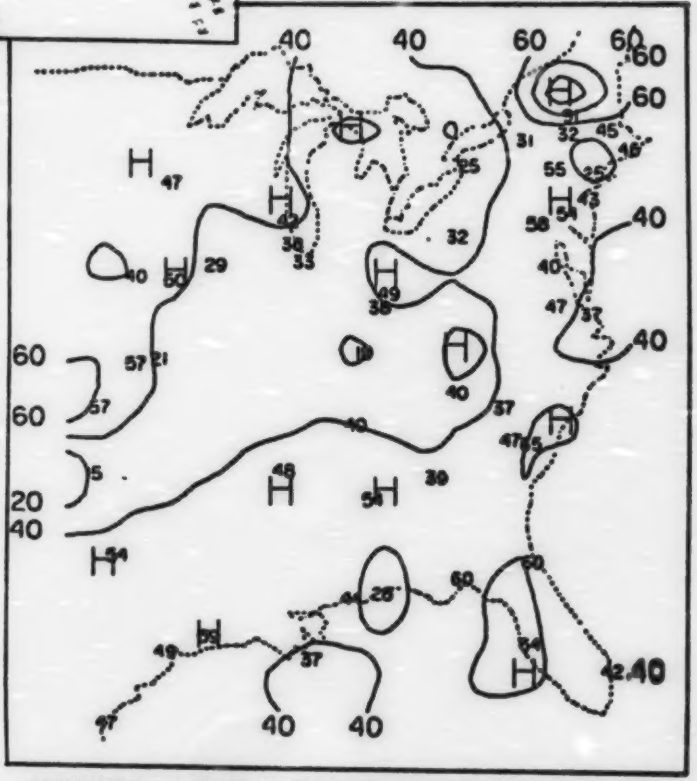
1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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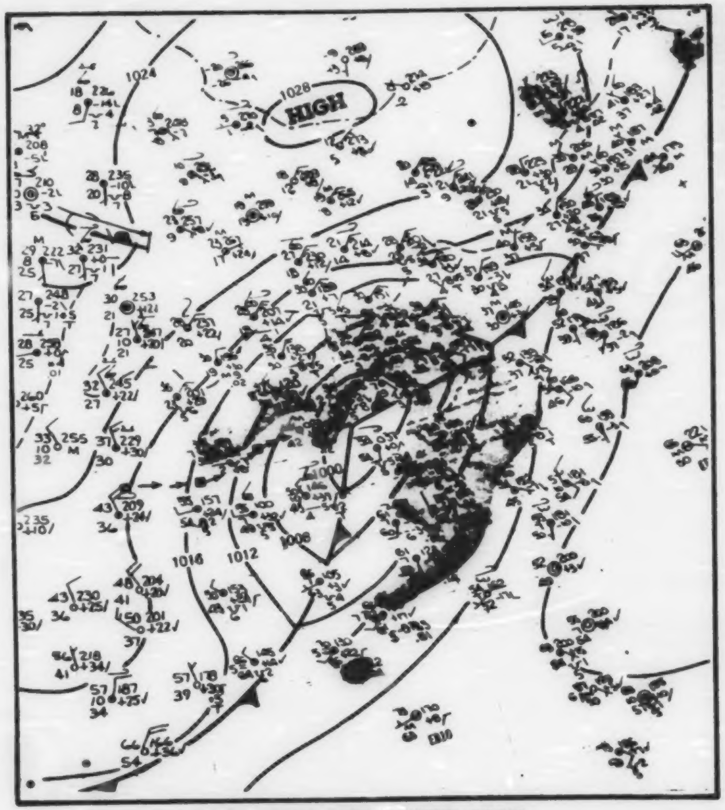
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY APRIL 7, 1974


HIGH
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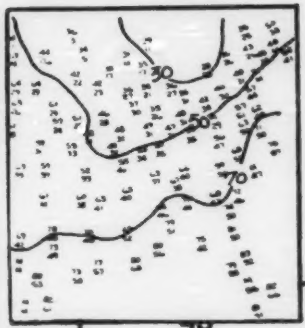
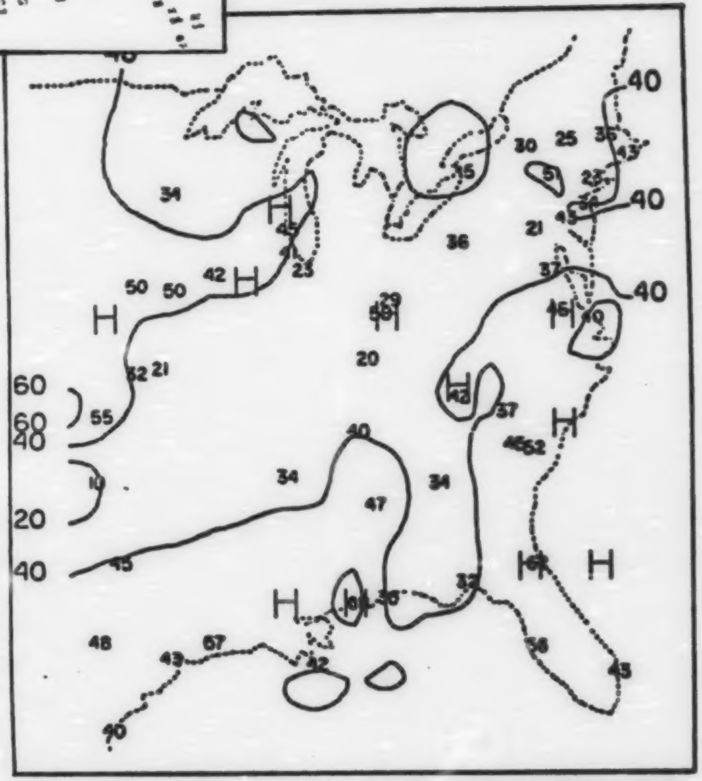
1008

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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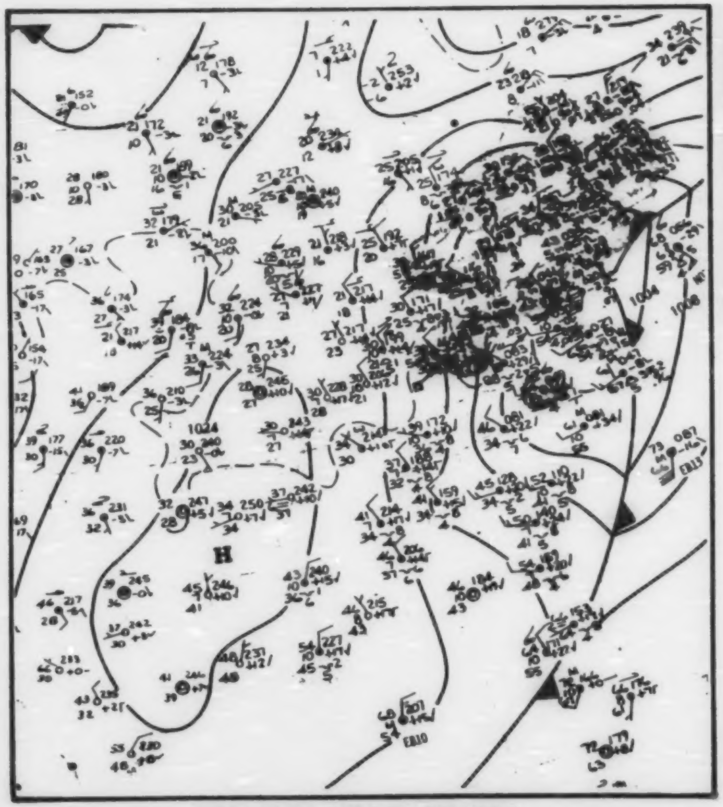
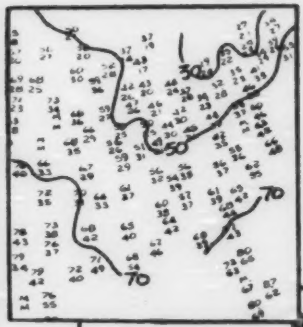
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

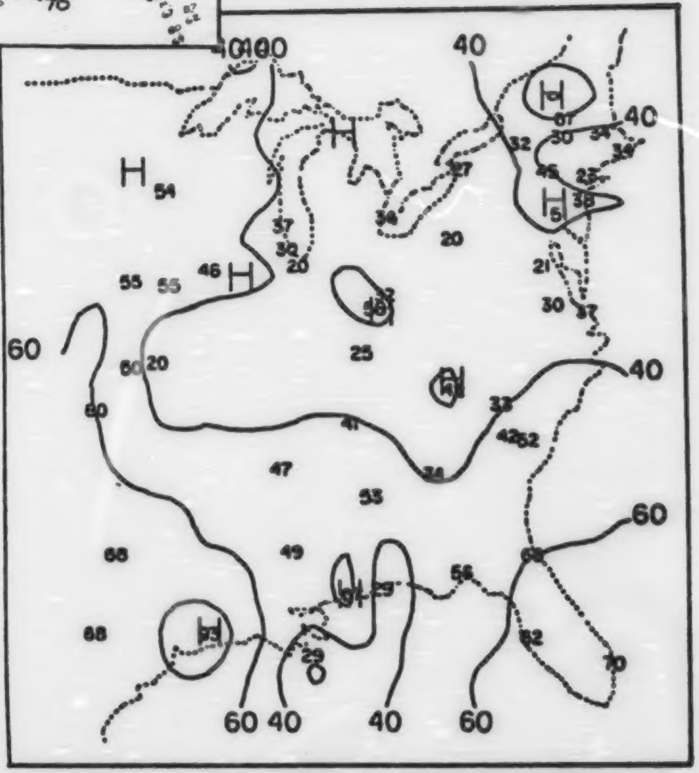
MONDAY, APRIL 8, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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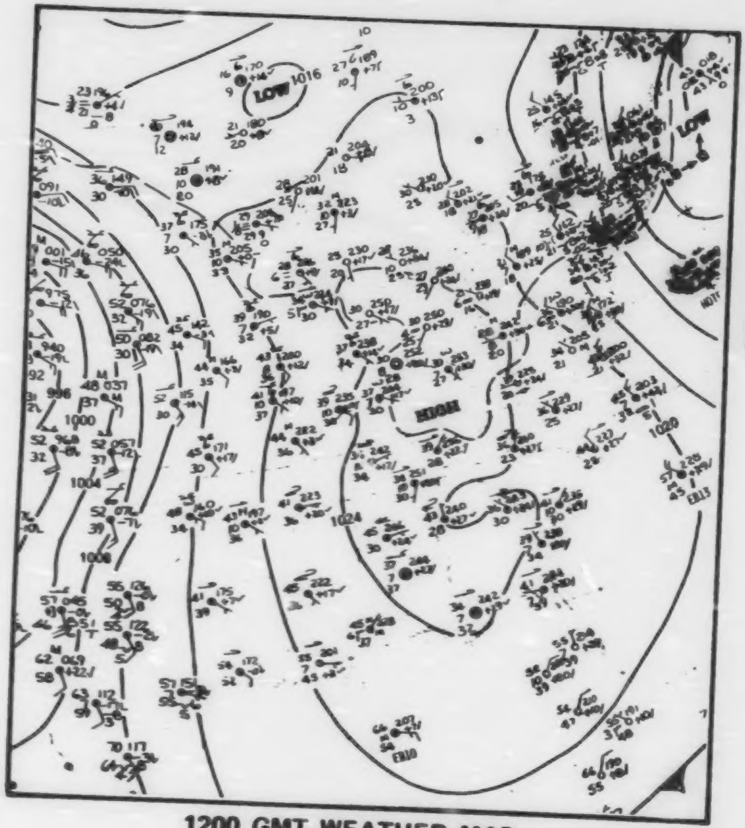
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, APRIL 9, 1974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1016
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1008
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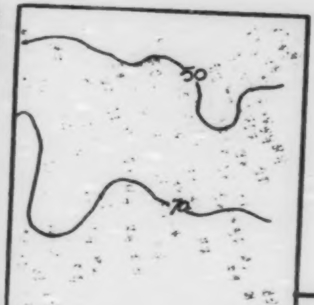
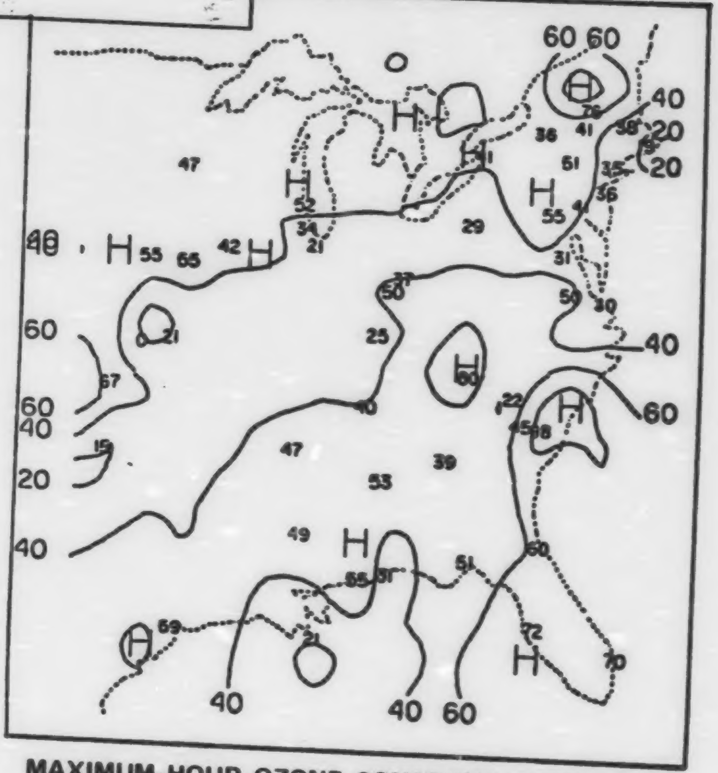
1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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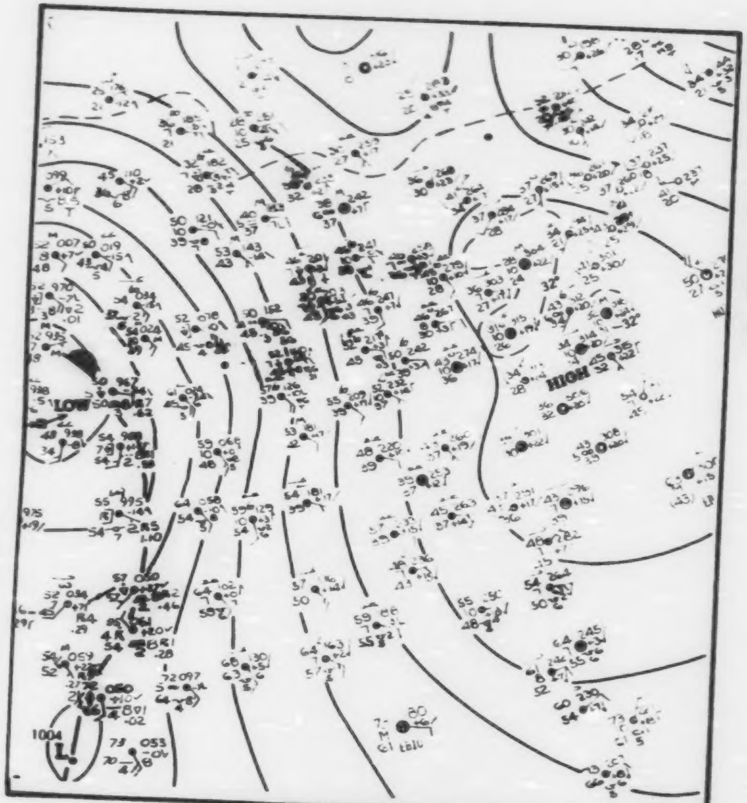
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, APRIL 10, 1974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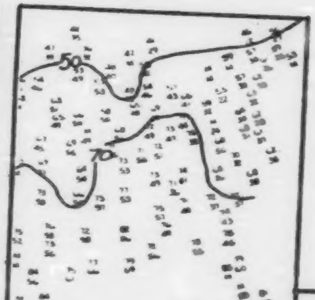
1200 GMT WEATHER MAP



MAXIMUM-
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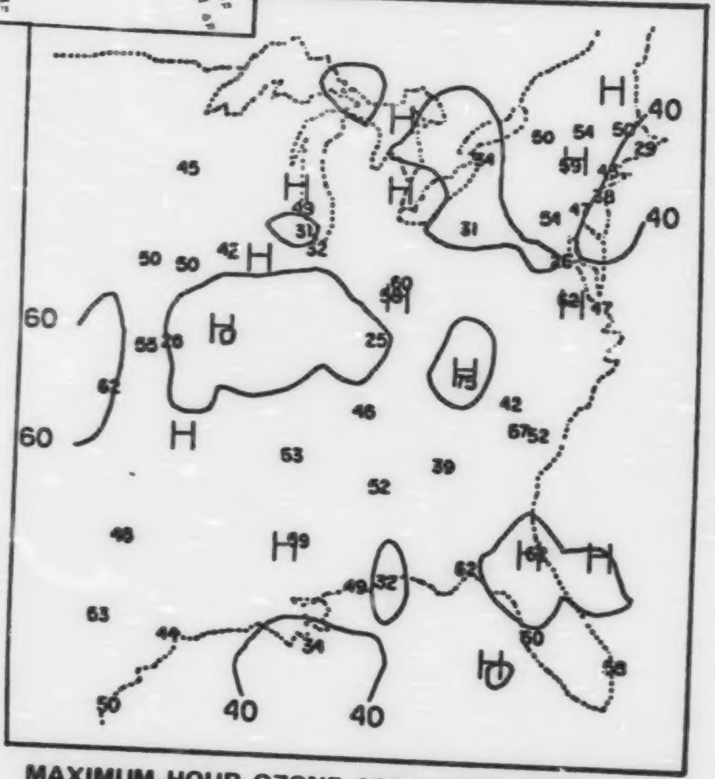
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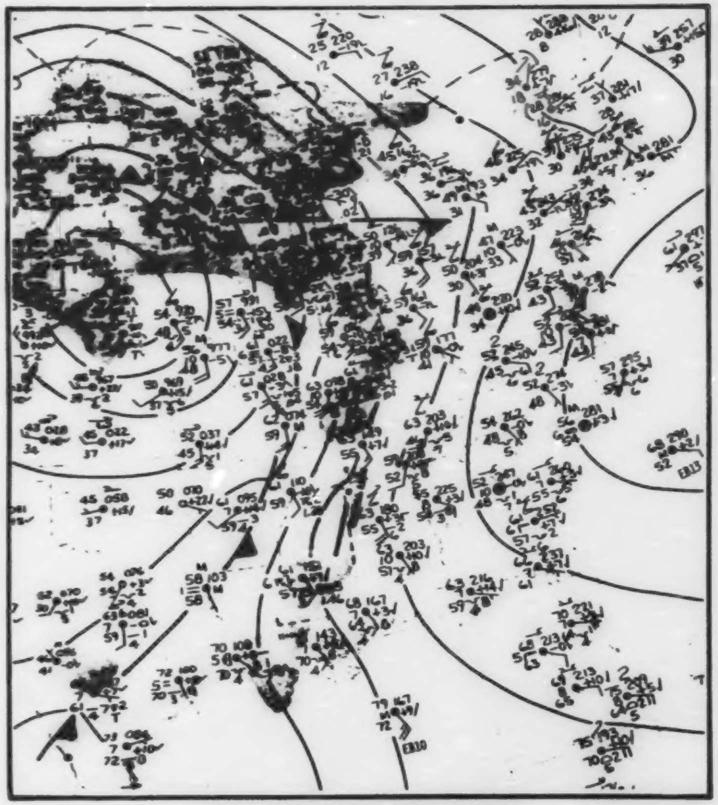
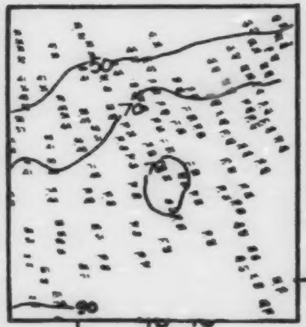
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, APRIL 11, 1974



1200 GMT WEATHER MAP



MAXIMUM-
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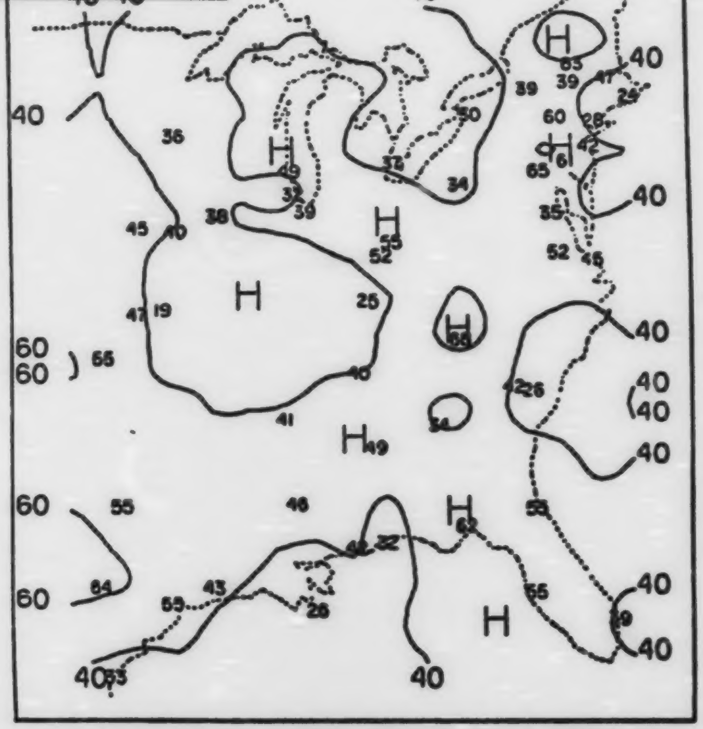
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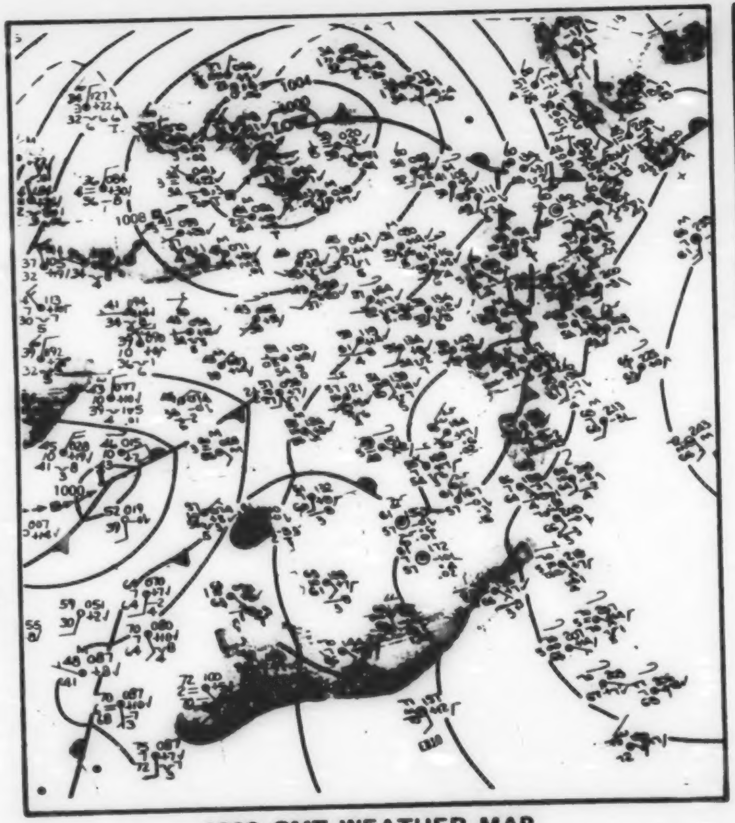
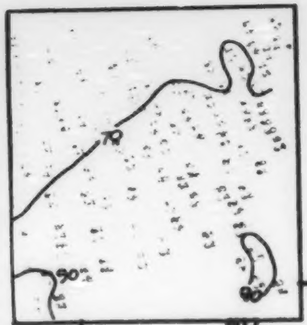
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, APRIL 12, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
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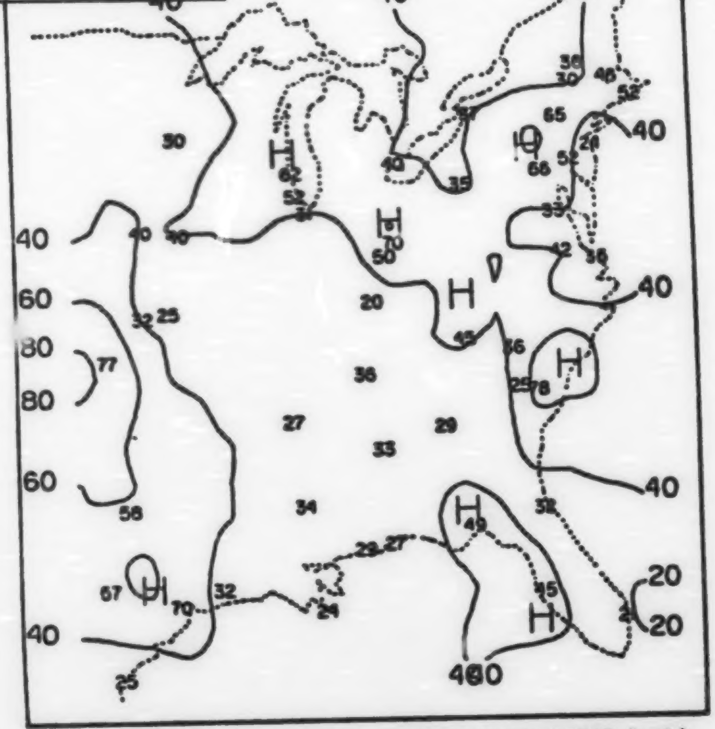
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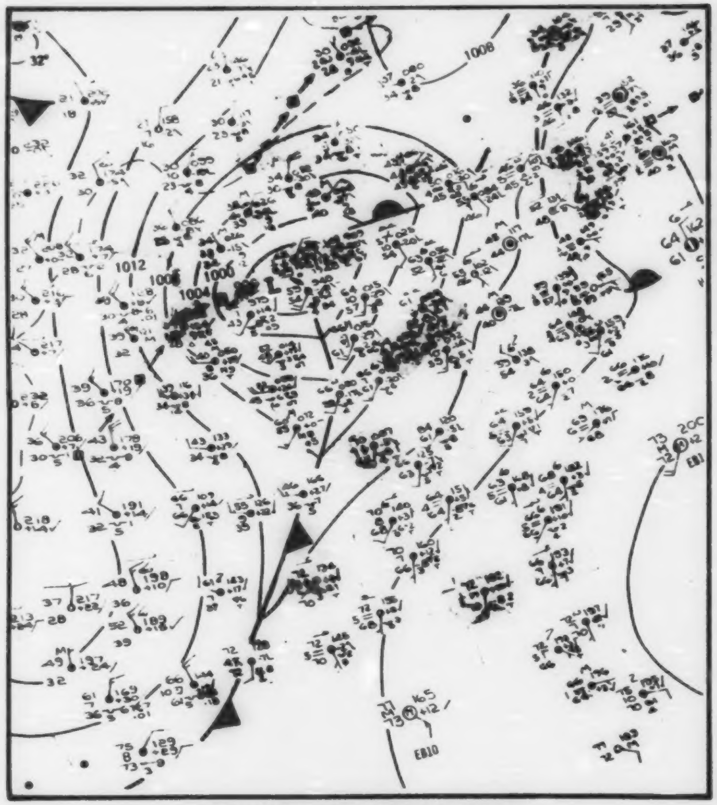
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, APRIL 13, 1974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1200 GMT WEATHER MAP

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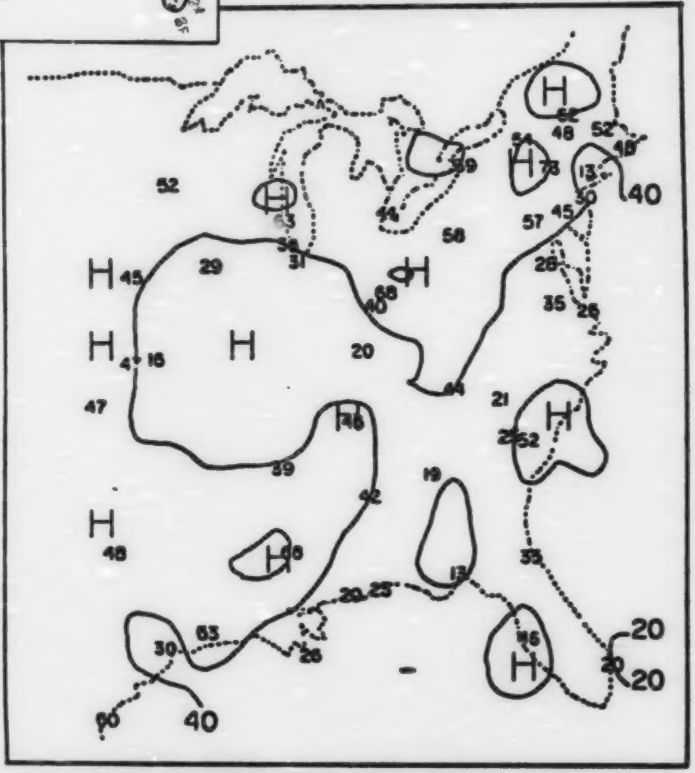
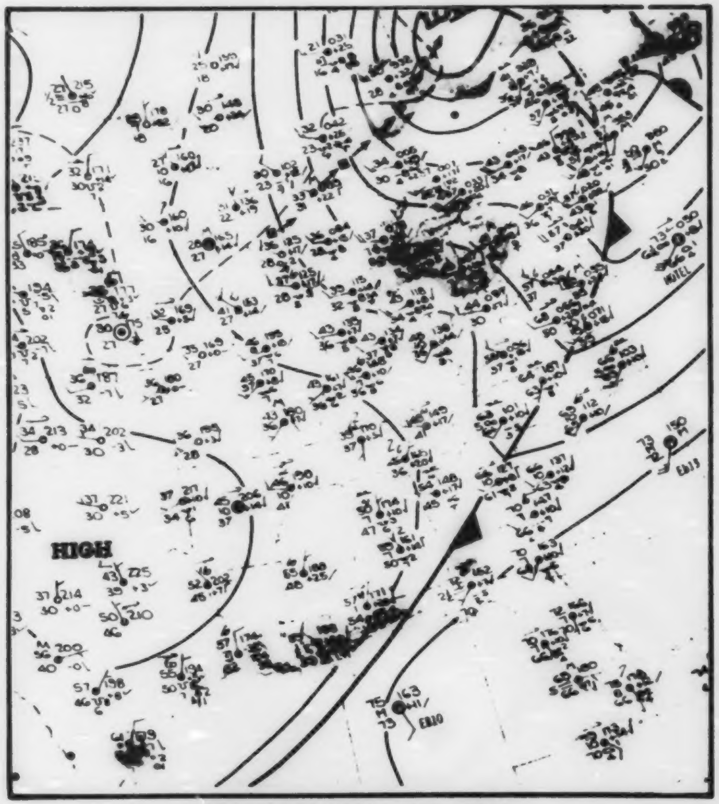
MAXIMUM-
MINIMUM
TEMPERATURE

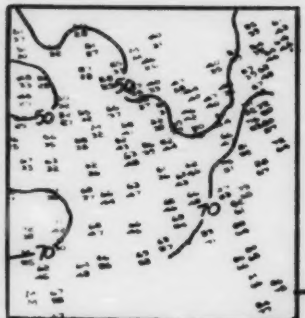


MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

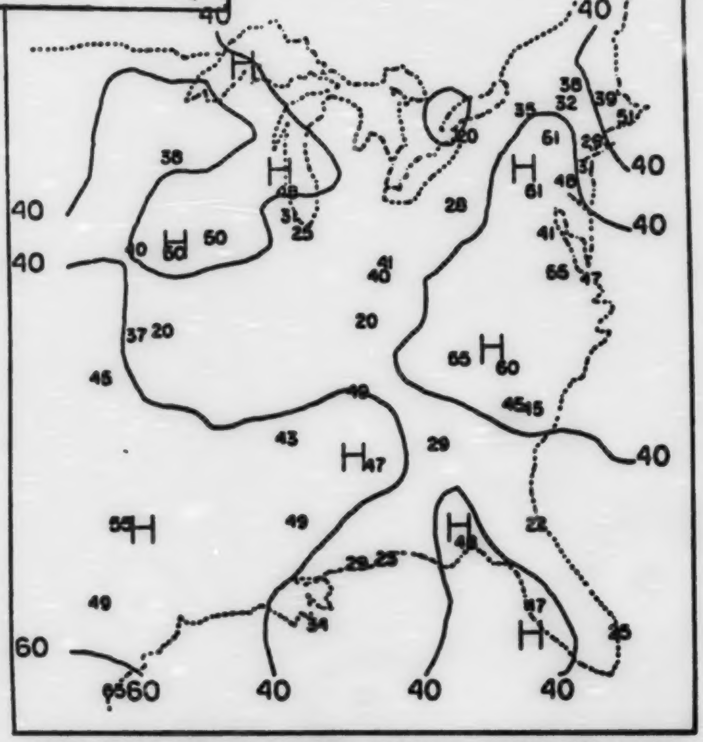
SUNDAY, APRIL 14, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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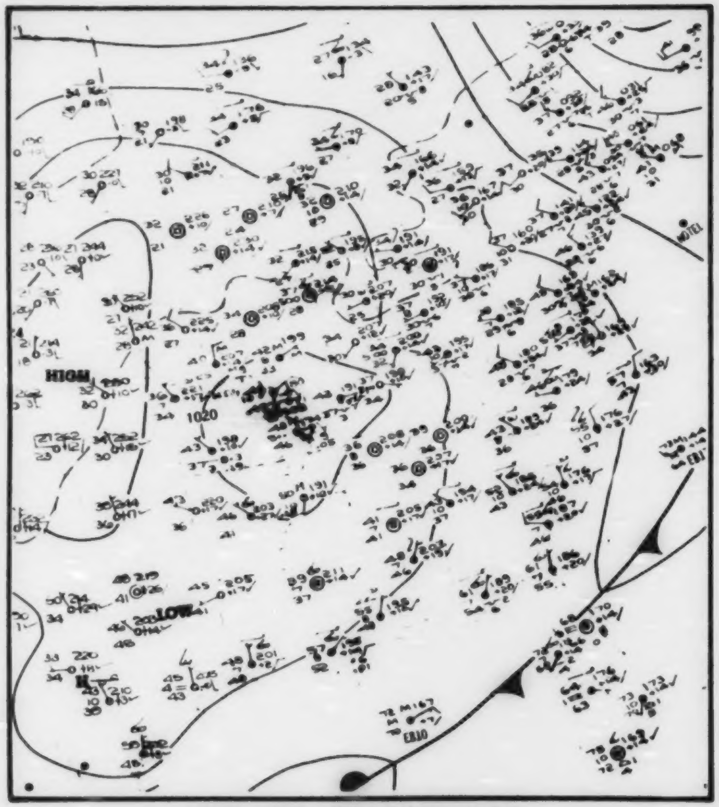
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, APRIL 15, 1974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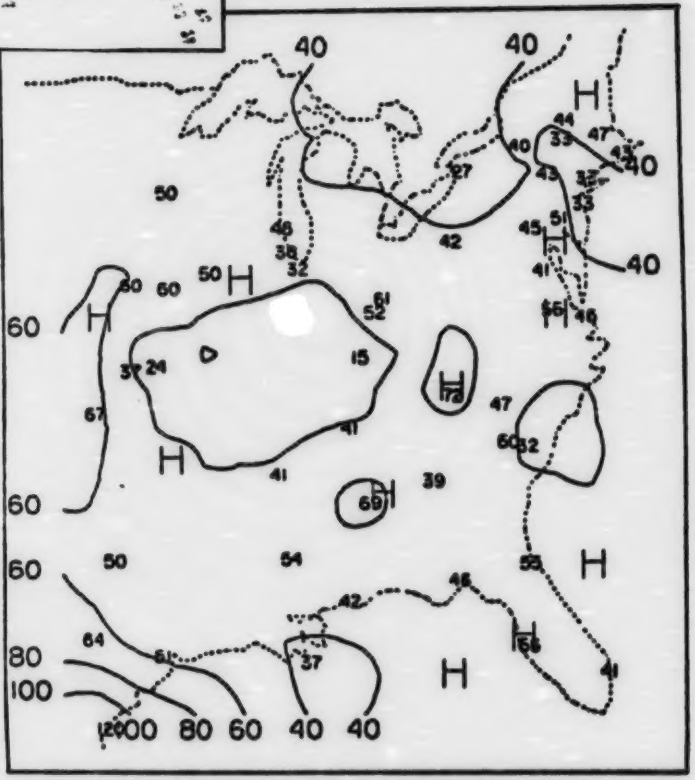
1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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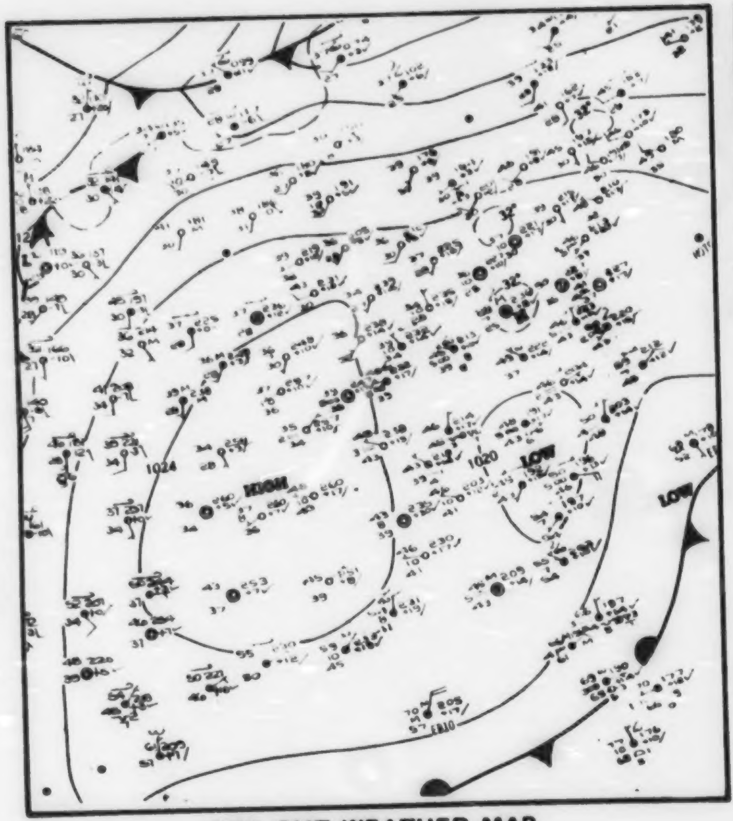
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, APRIL 16, 1974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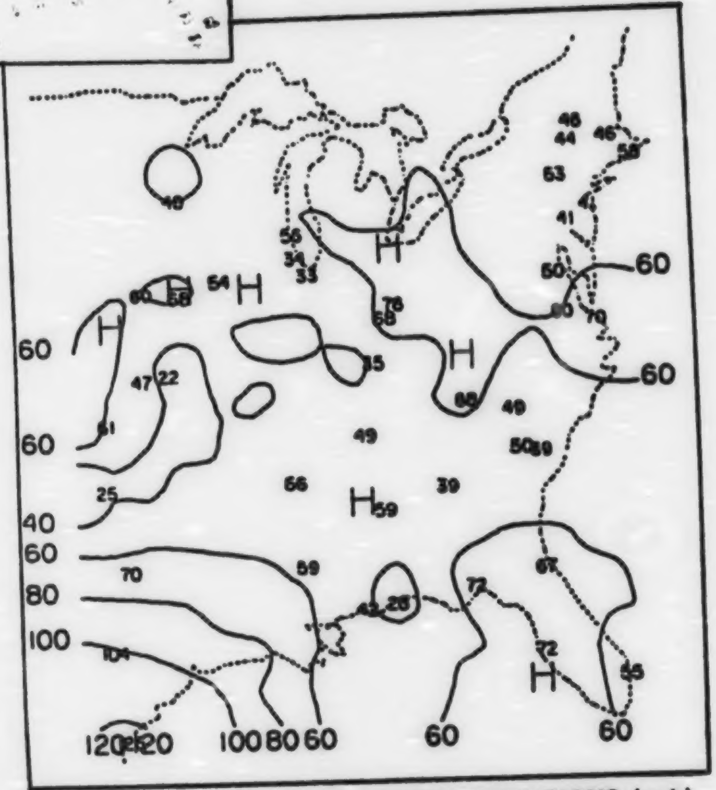
1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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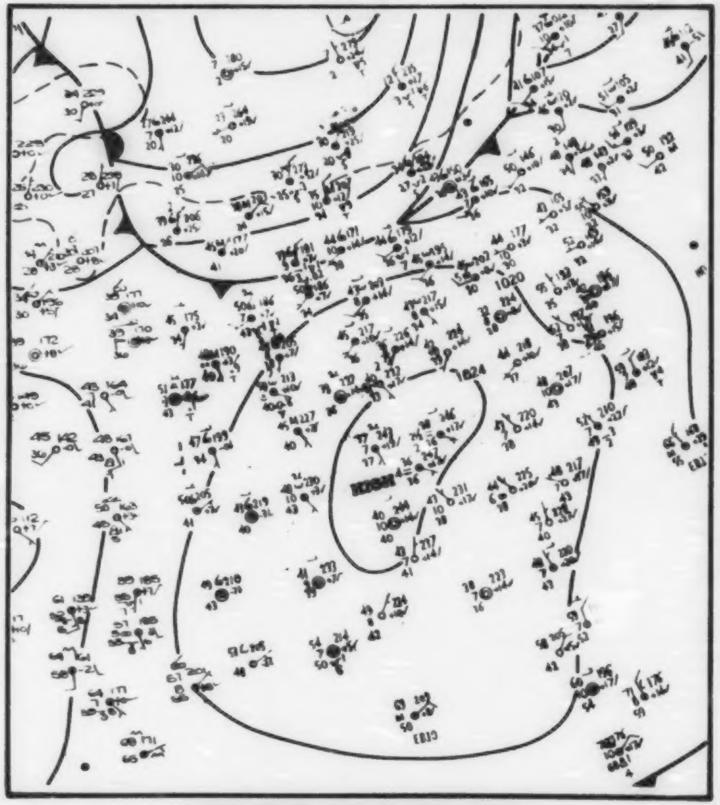
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, APRIL 17, 1974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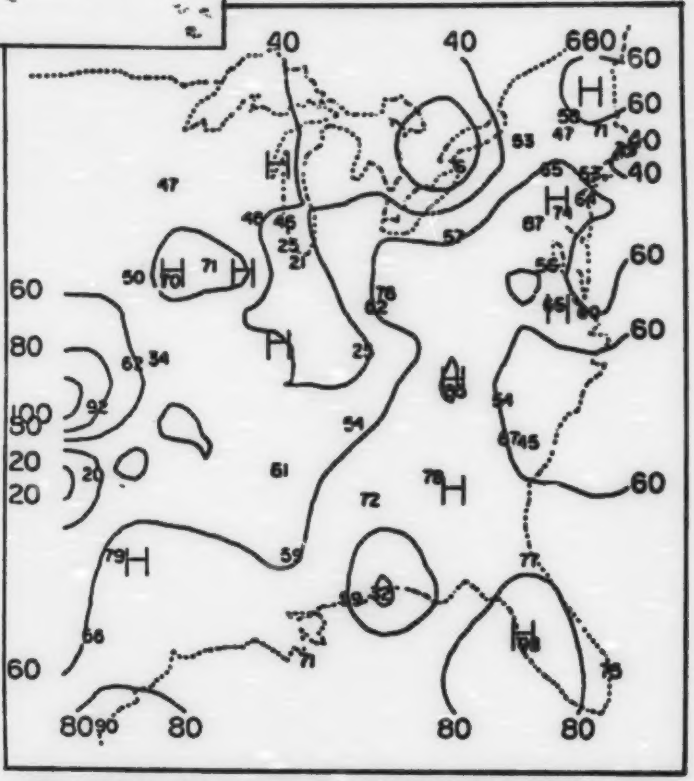
1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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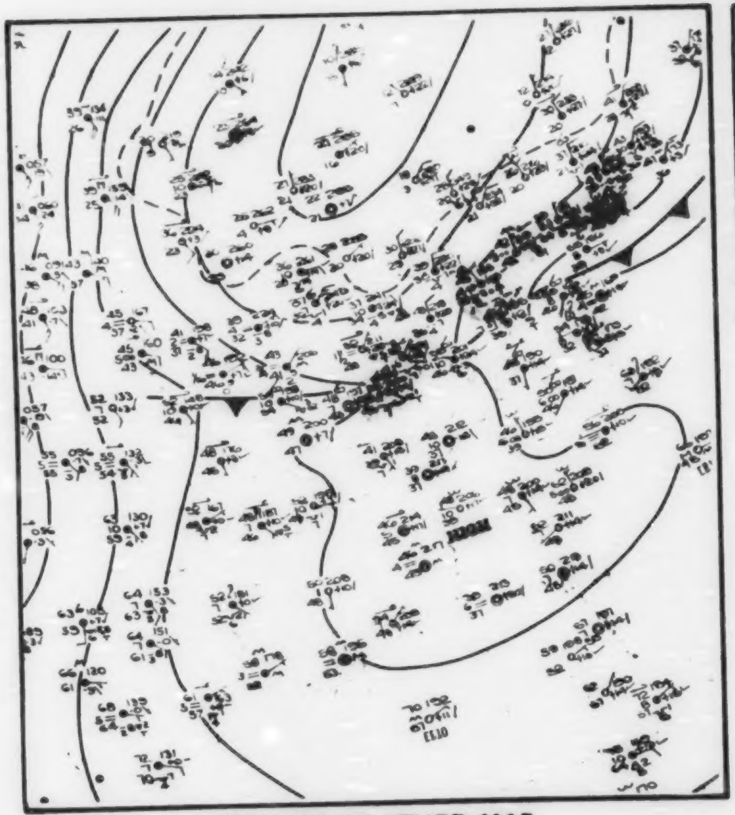
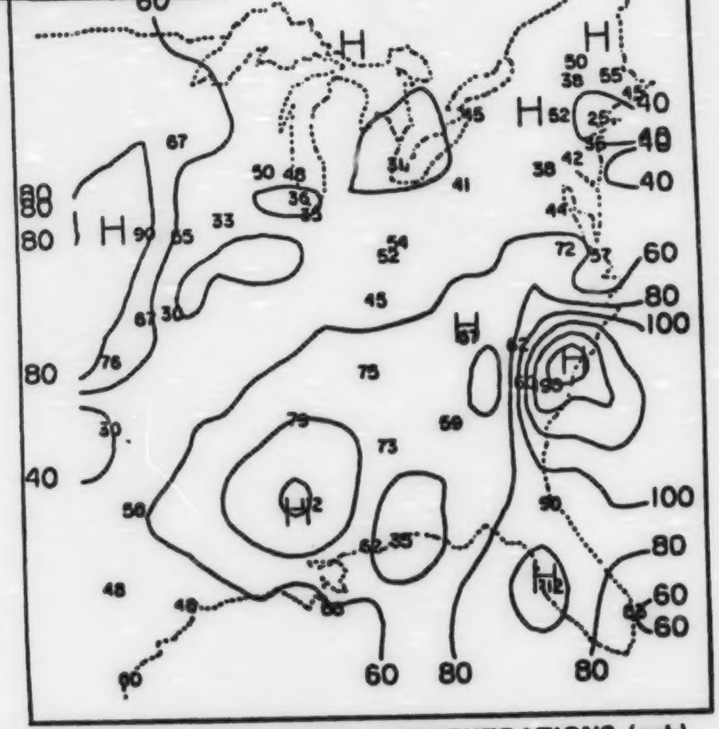
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, APRIL 18, 1974



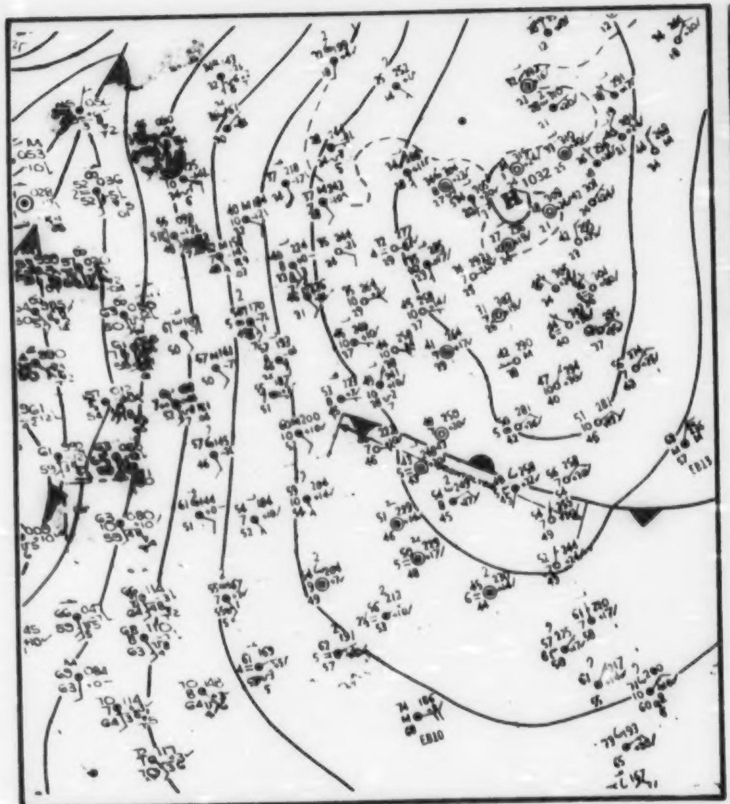
1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE



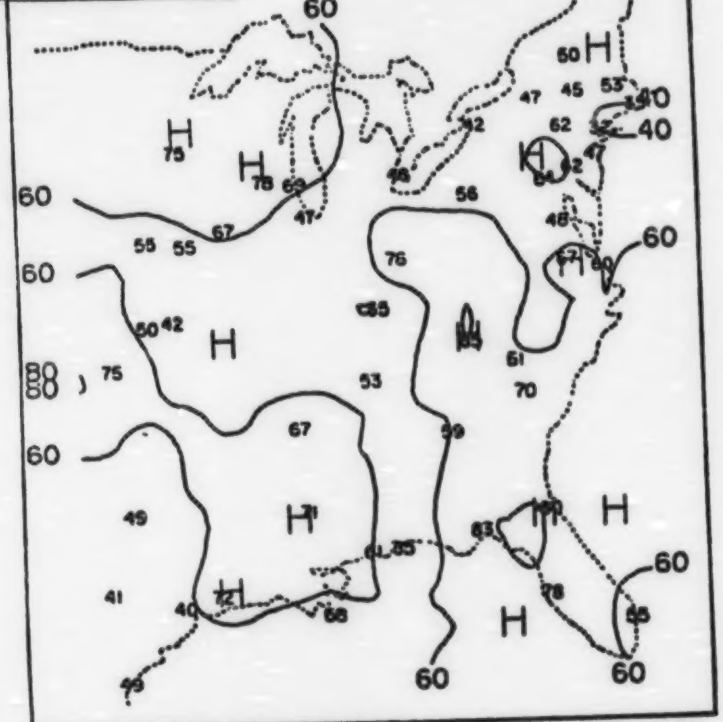
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, APRIL 19, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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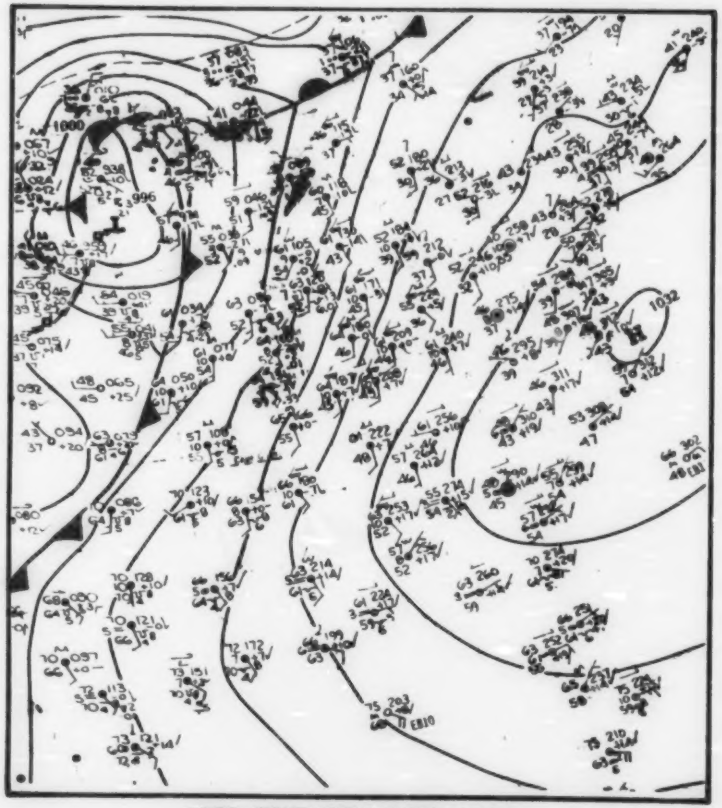
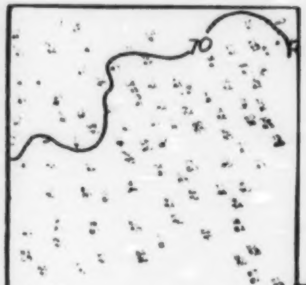
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, APRIL 20, 1974



1200 GMT WEATHER MAP



MAXIMUM-
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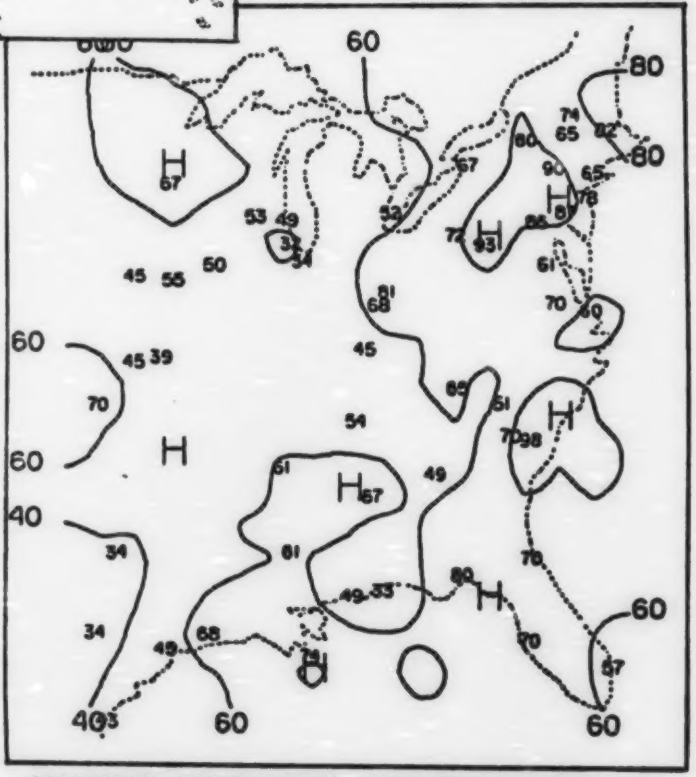
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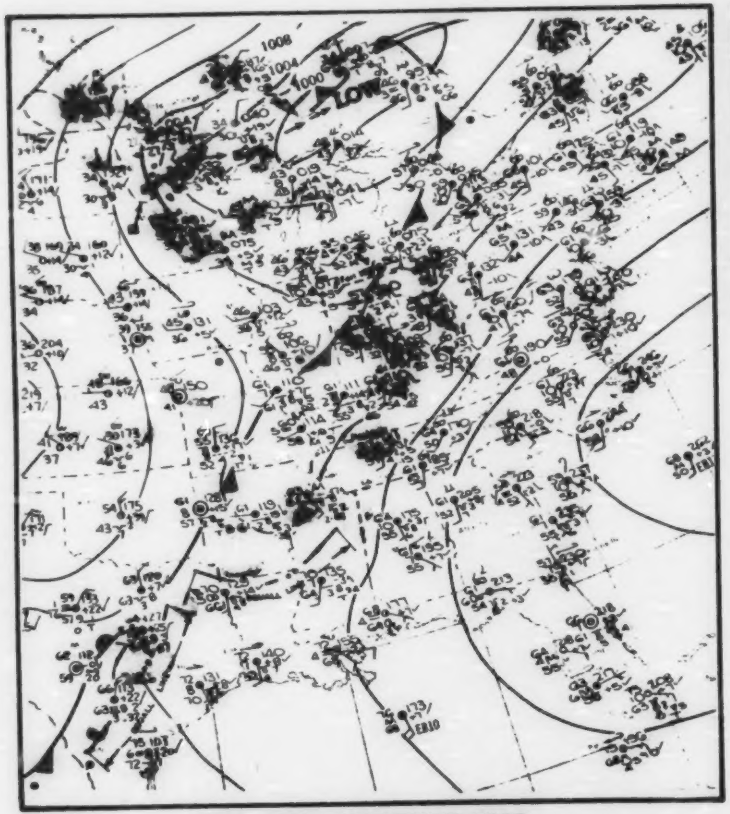
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, APRIL 21, 1974


1008
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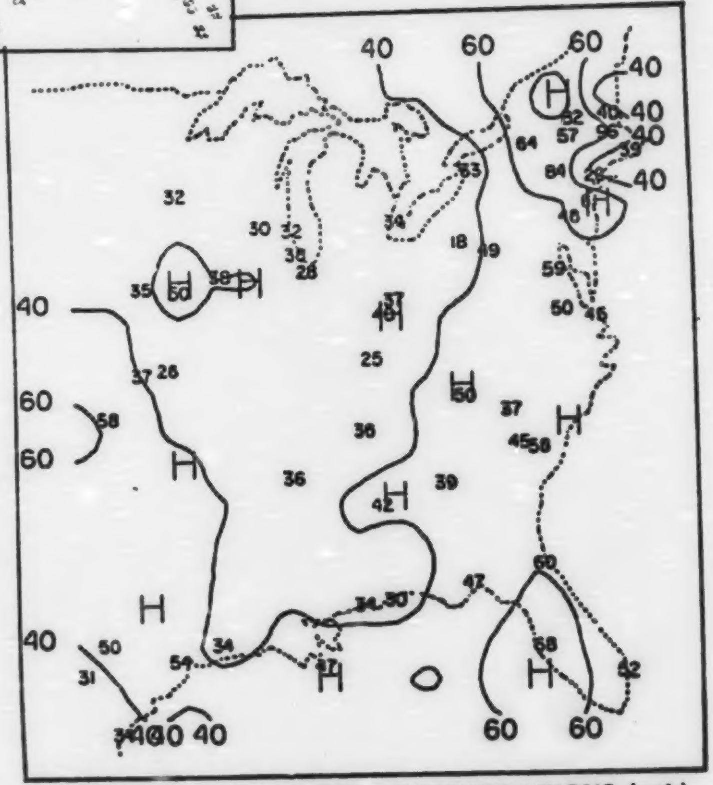
1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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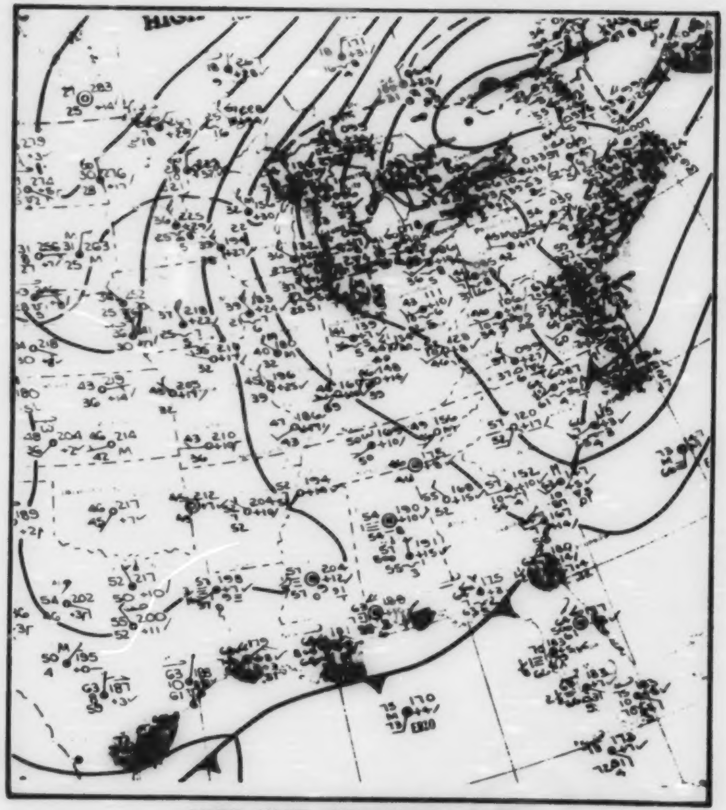
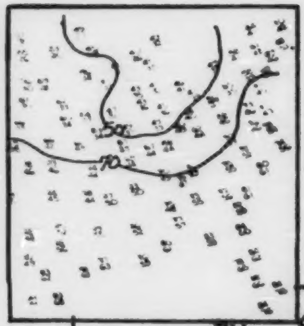
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

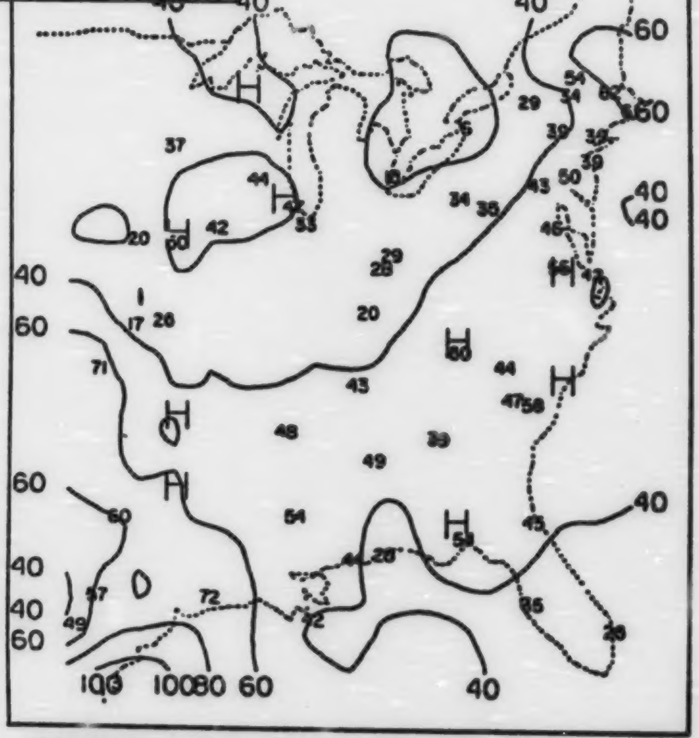
MONDAY, APRIL 22, 1974



1200 GMT WEATHER MAP



MAXIMUM-MINIMUM TEMPERATURE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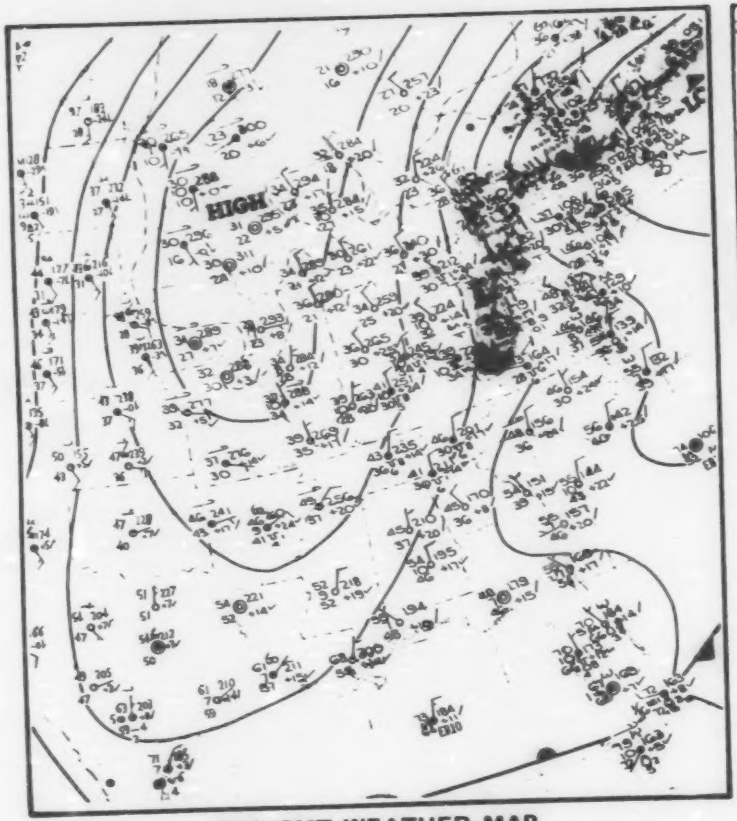
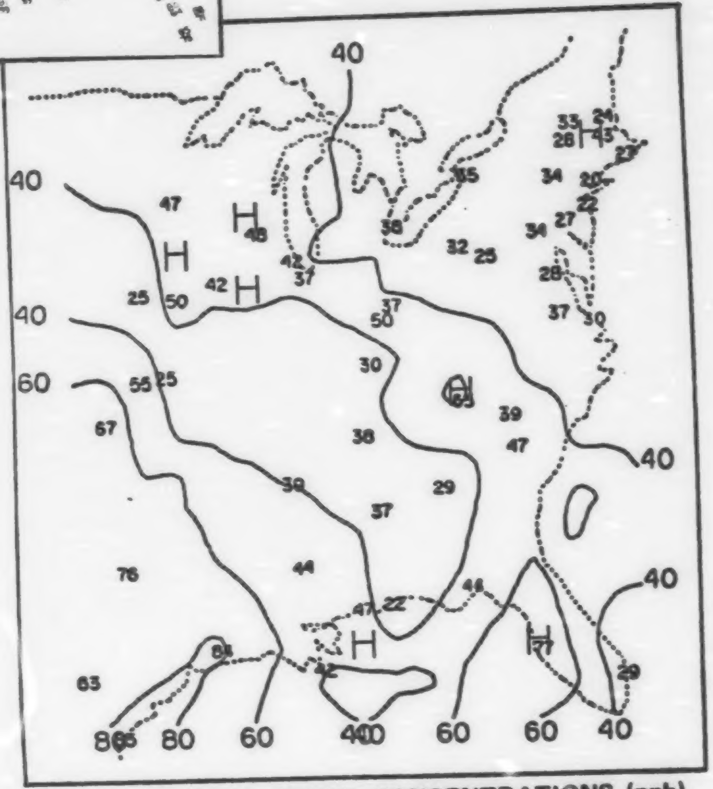
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, APRIL 23, 1974



1200 GMT WEATHER MAP

MAXIMUM-MINIMUM TEMPERATURE



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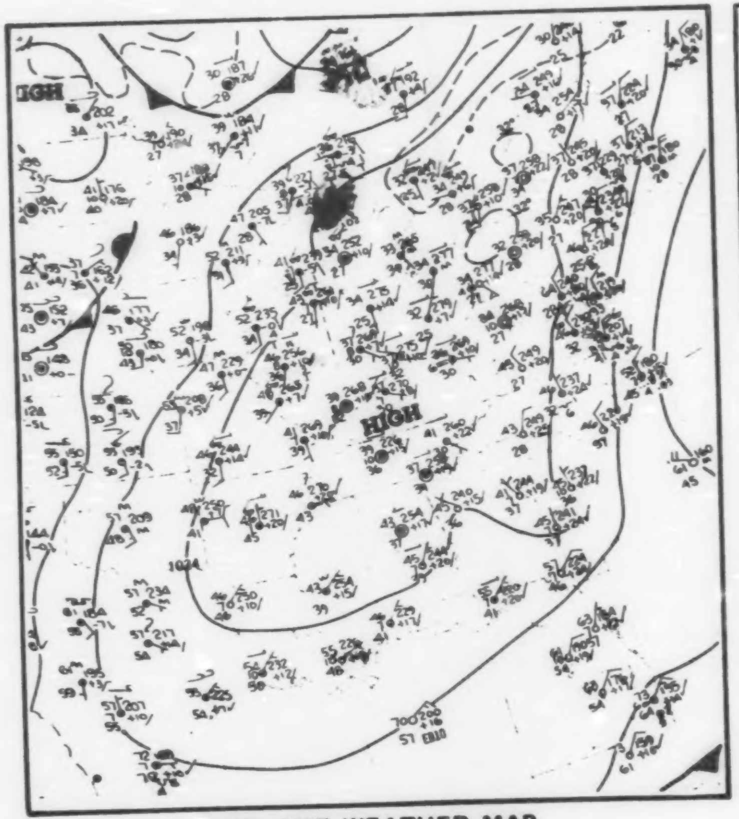
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, APRIL 24, 1974


HIGH
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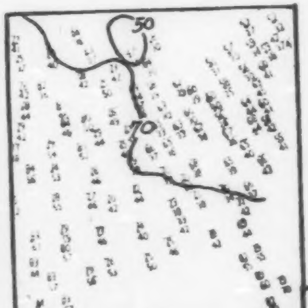
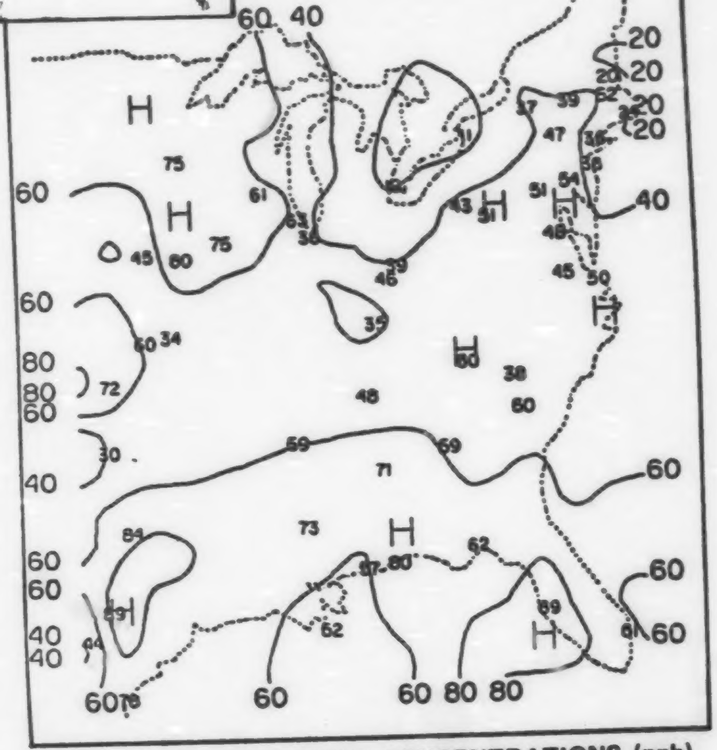
1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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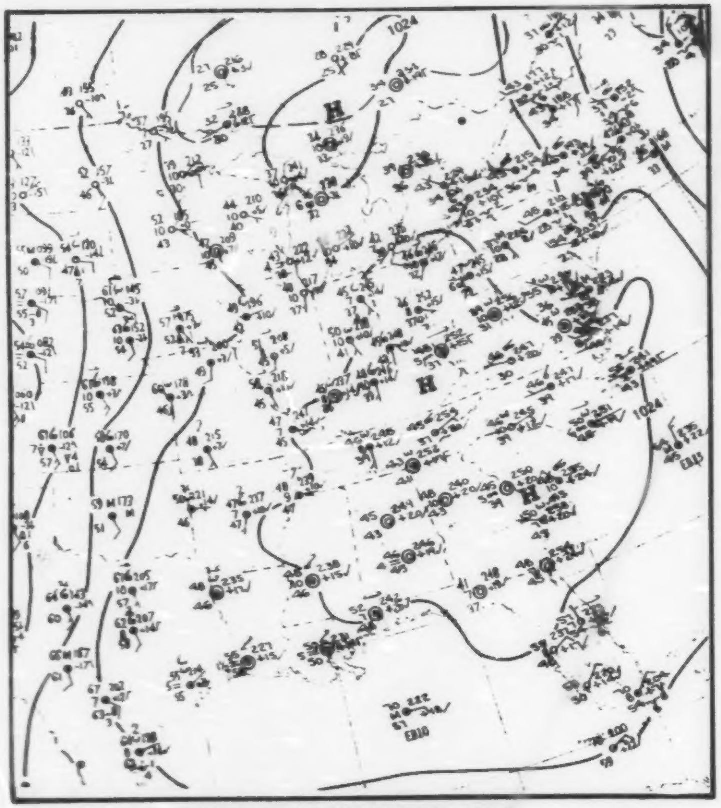
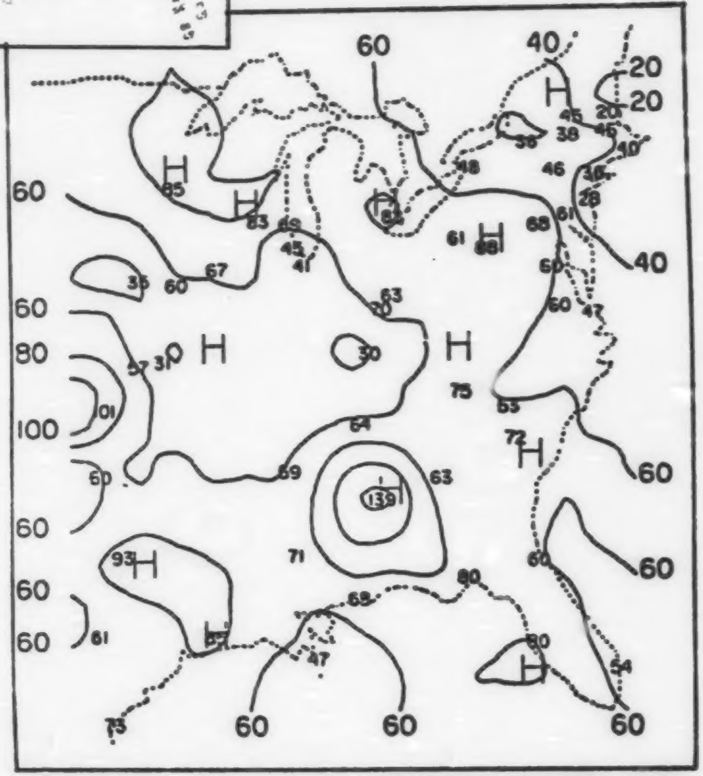
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, APRIL 25, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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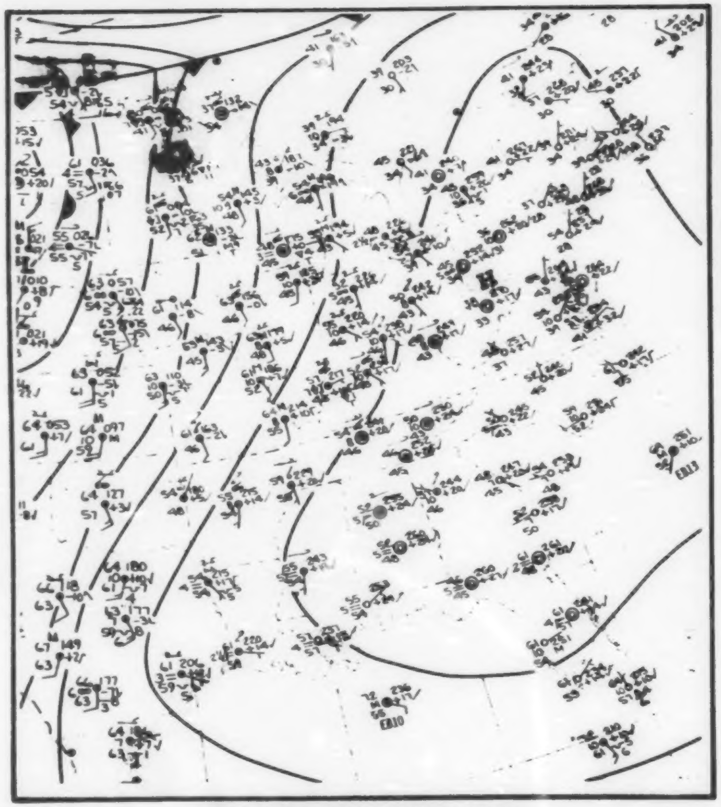
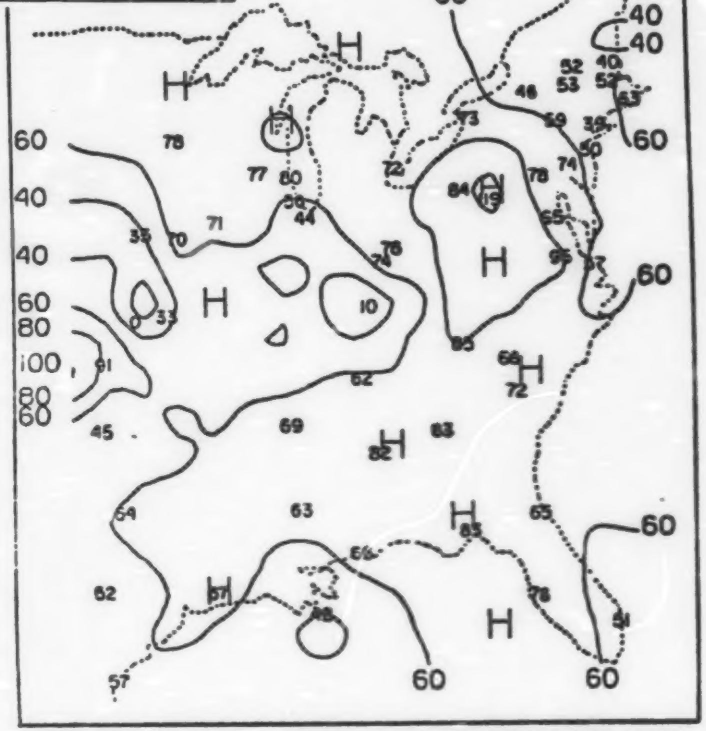
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, APRIL 26, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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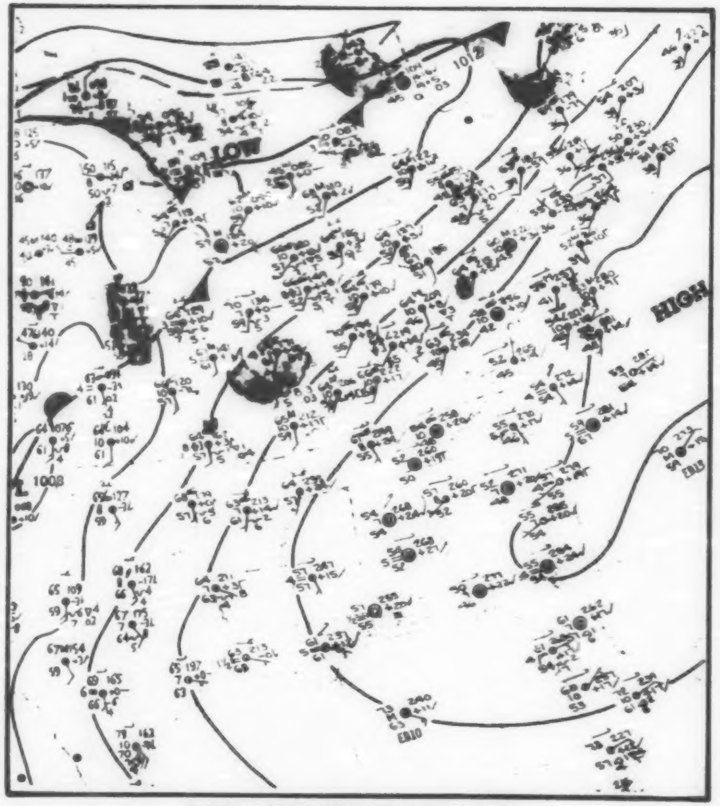
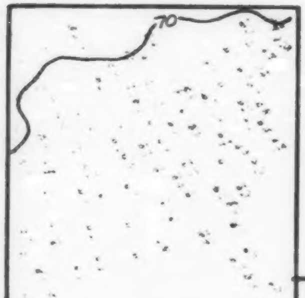
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

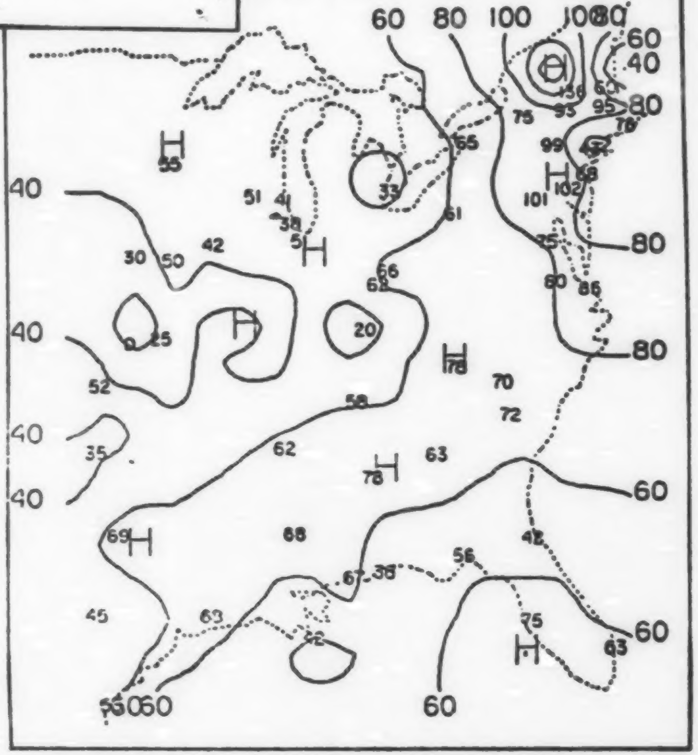
SATURDAY, APRIL 27, 1974


LOW
HIGH
1012
1008

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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60
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80
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60
40
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51
41
38
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42
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33
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75
93
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101
102
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85
78
70
72
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58
35
62
63
78
69
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42
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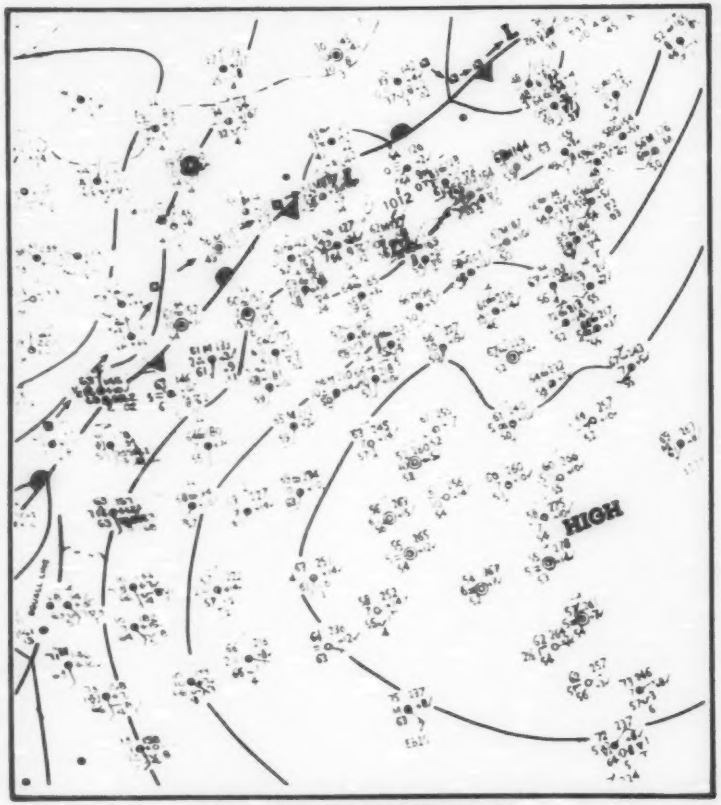
67
38
45
63
52
75
63

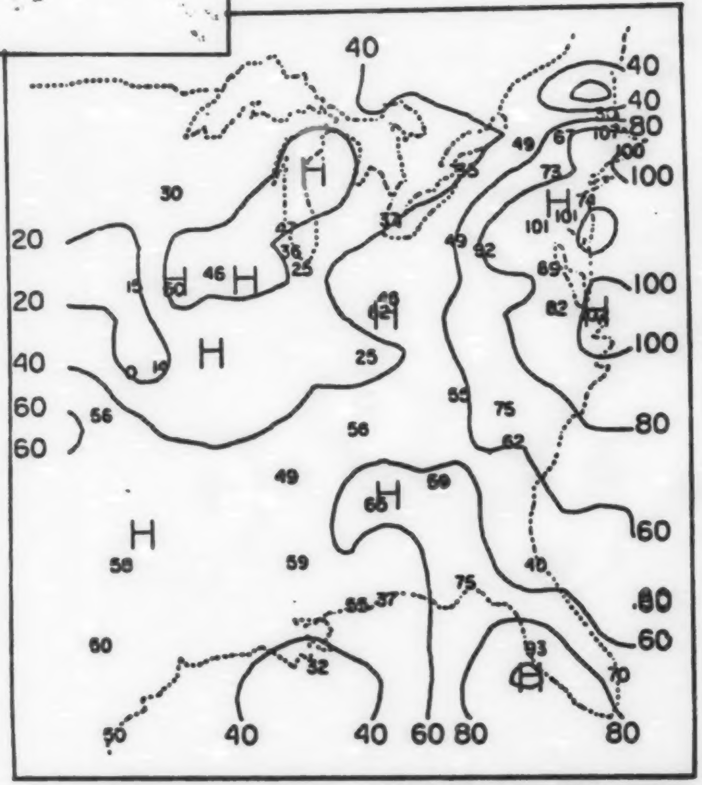
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, APRIL 28, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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46
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49
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56
25
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49
52
73
67
101
69
82
55
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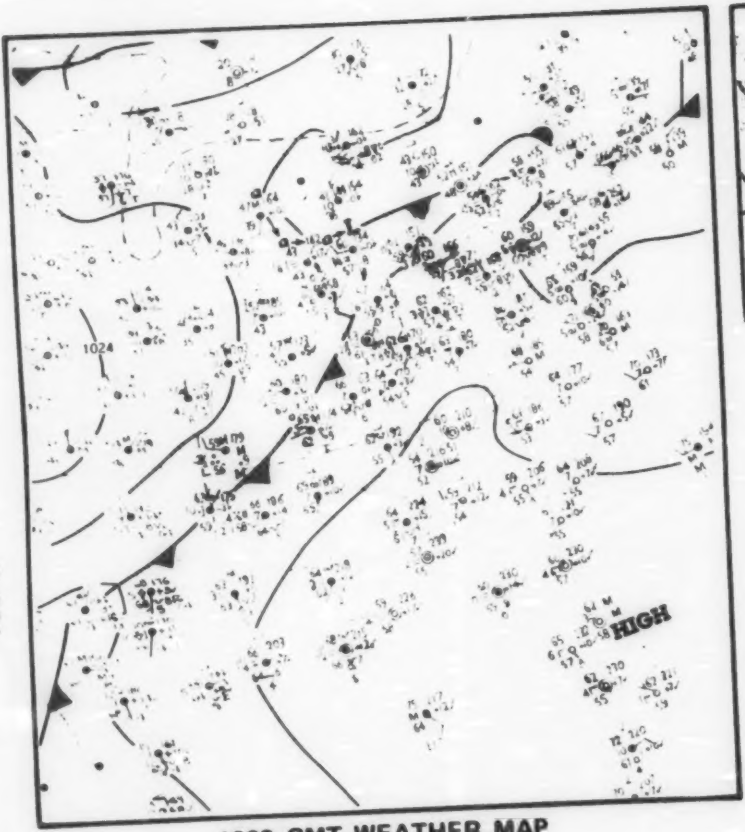
32
93
70
40

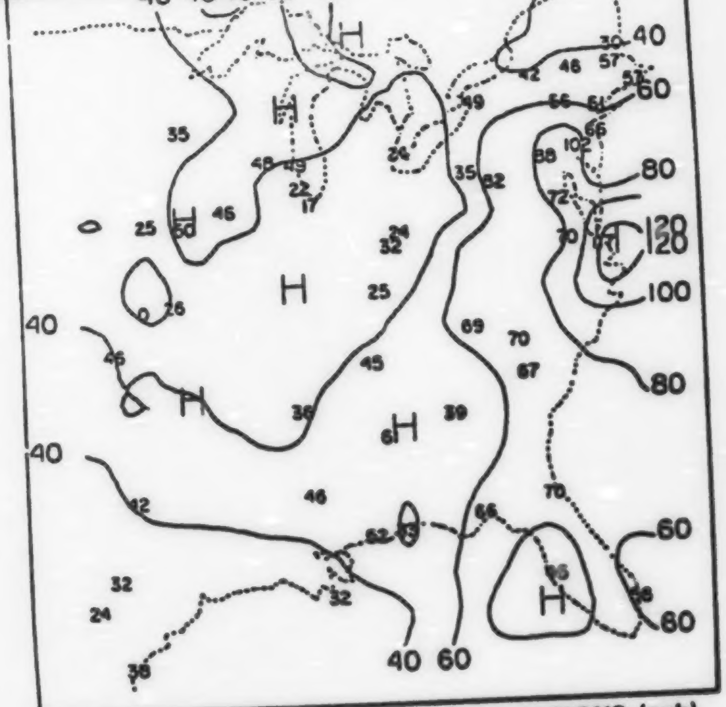
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, APRIL 29, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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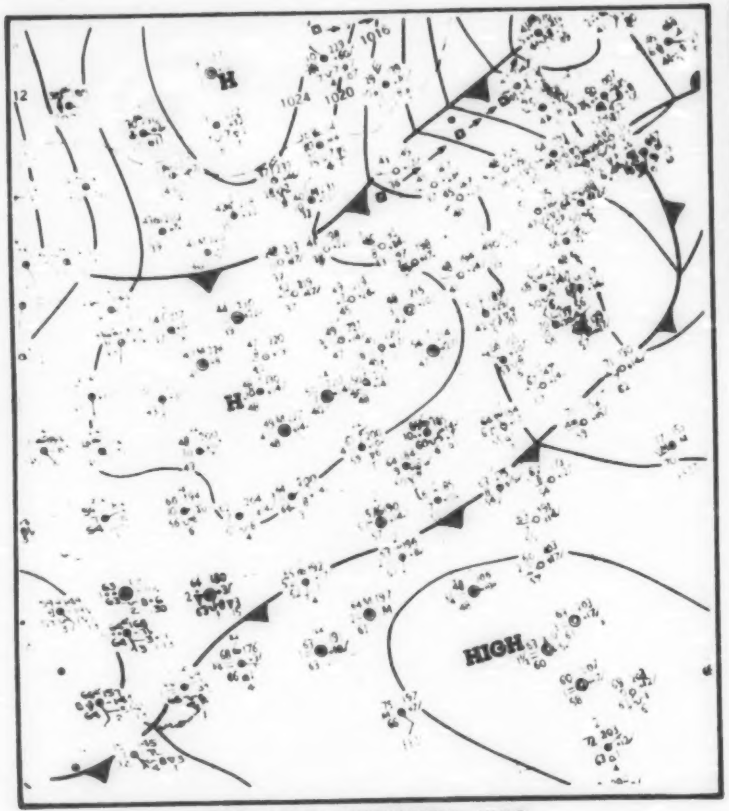
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, APRIL 30, 1974


12
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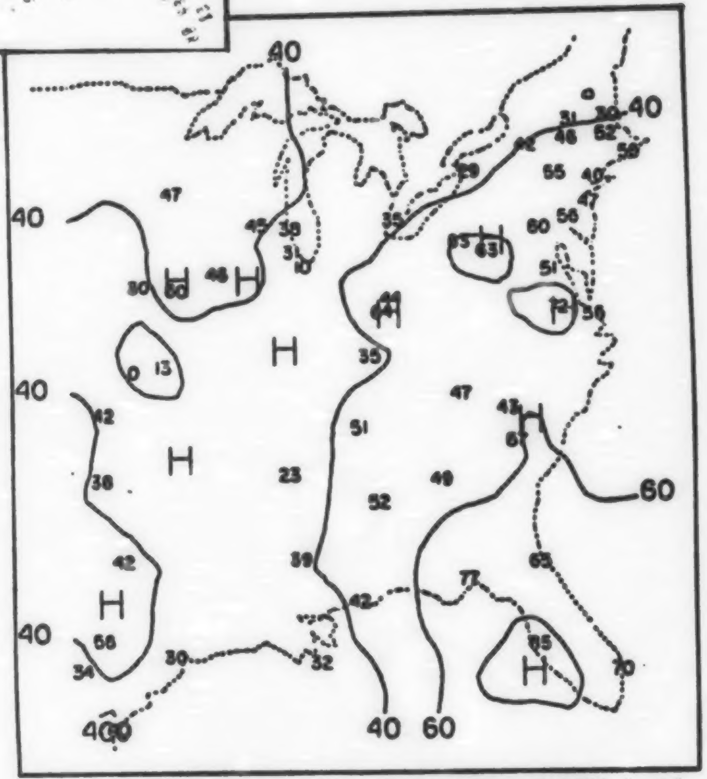
1024
1020
1016
H
HIGH

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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400
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13
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36
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43
61
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63
77
85
70
53
63
60
51
12
56
55
40
47
31
46
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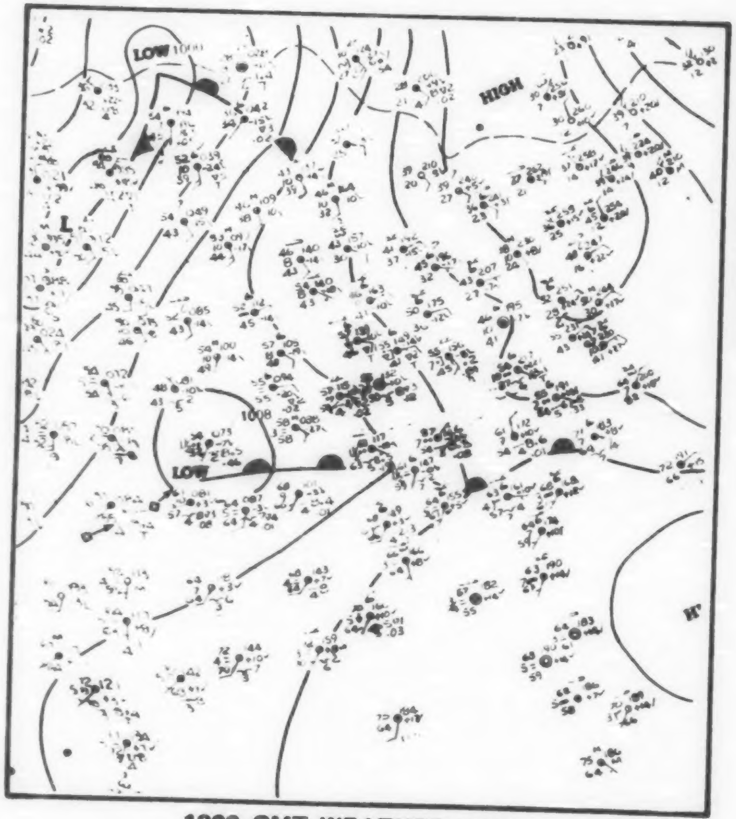
58
0
29
35
42

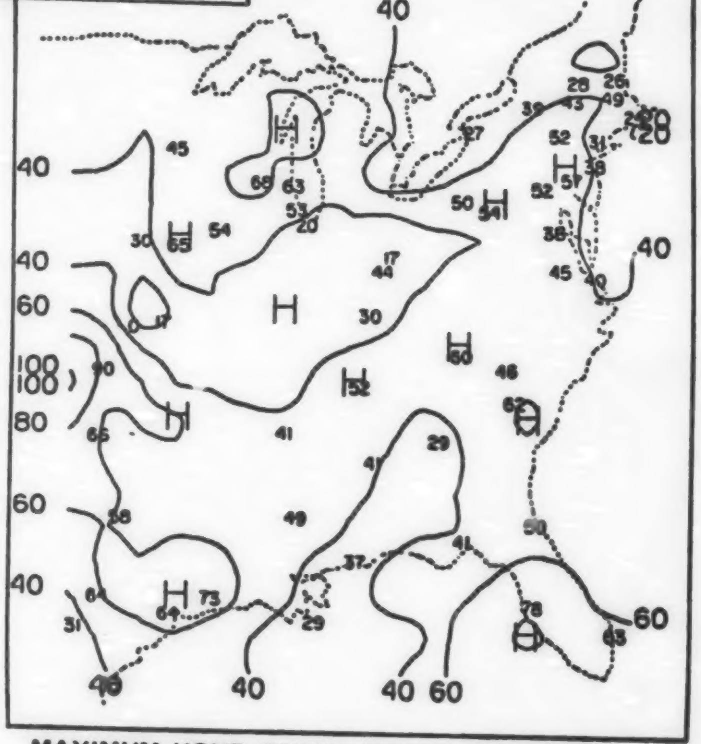
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, MAY 1, 1974


LOW 1000
HIGH
L
1008
LOW

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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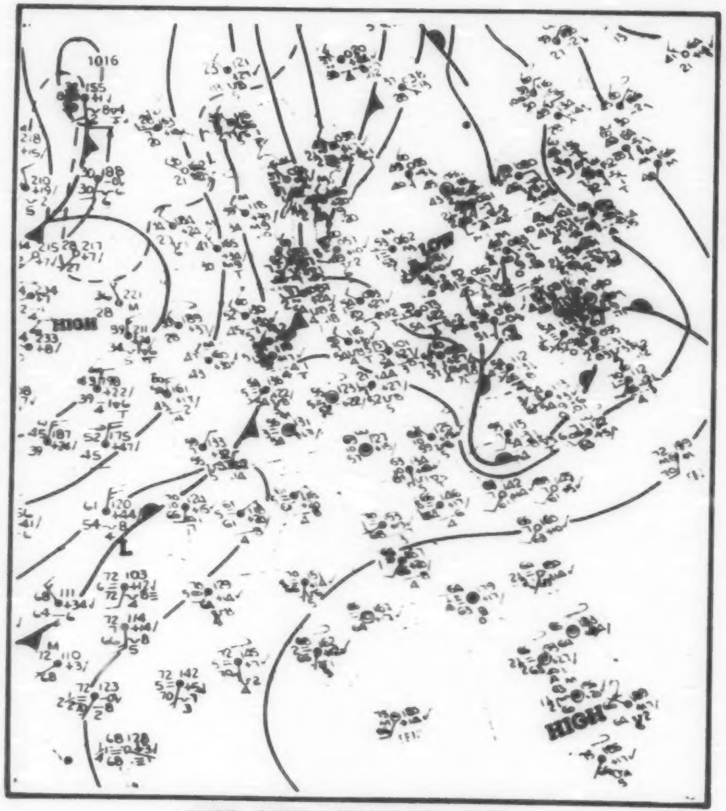
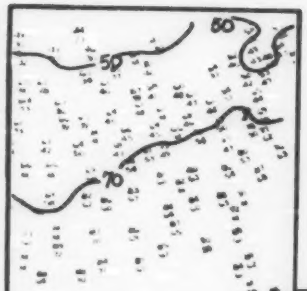
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

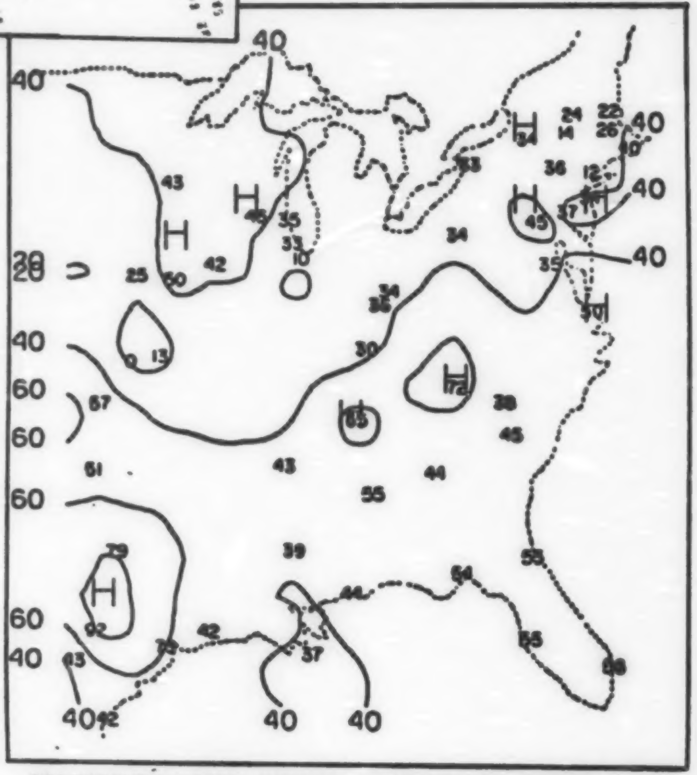
THURSDAY, MAY 2, 1974


1016
HIGH
L
HIGH

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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67
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73
92
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72
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36
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14
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38
45
44
54
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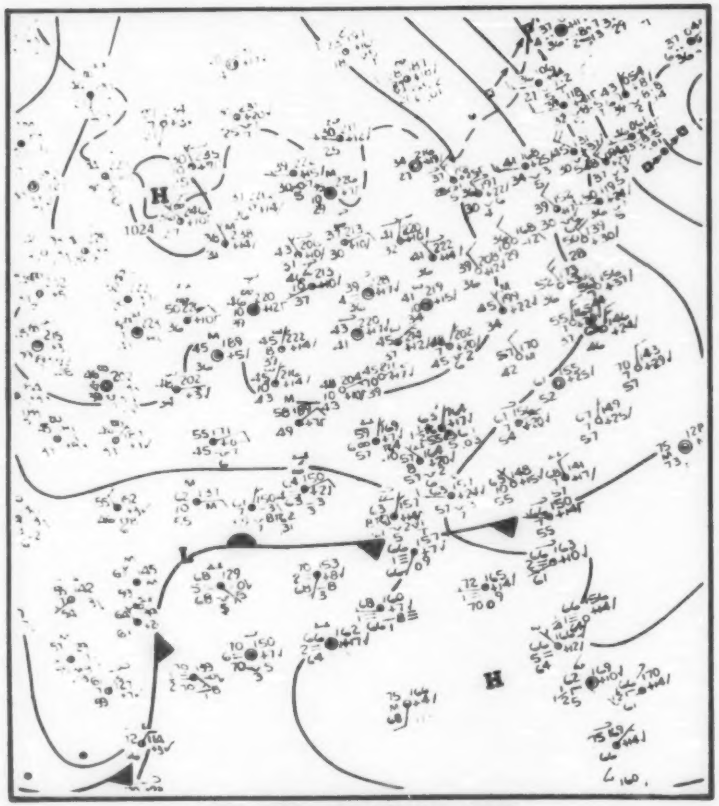
55
56

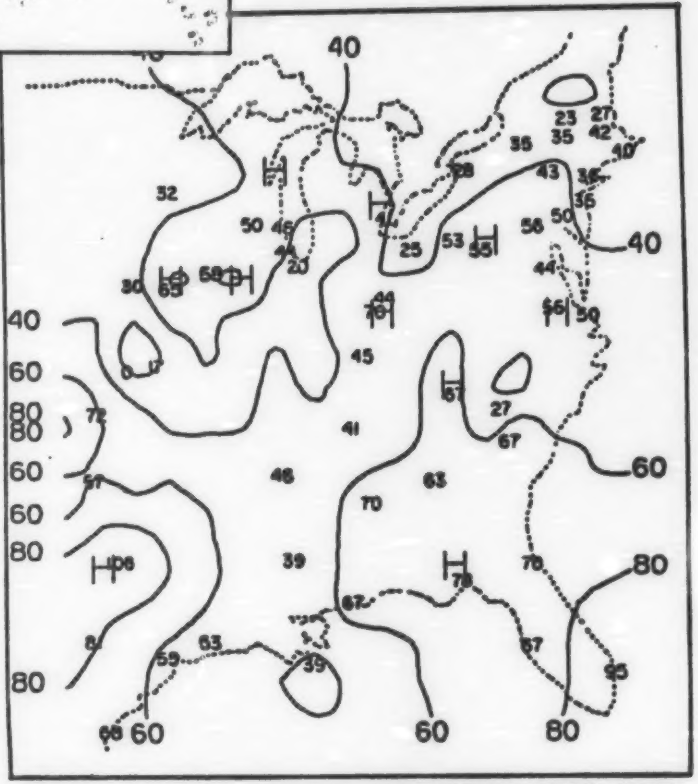
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, MAY 3, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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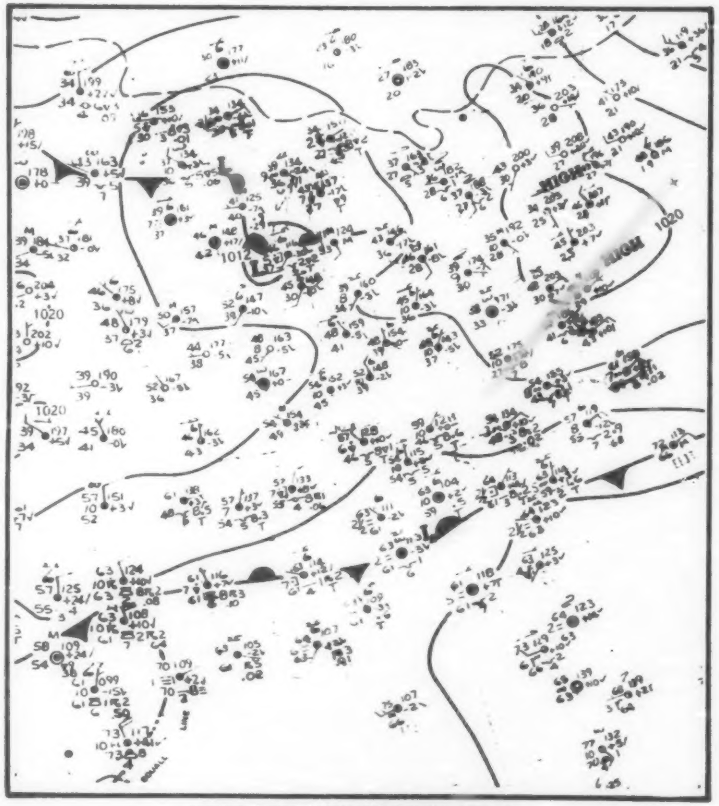
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, MAY 4, 1974


1012
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HIGH
HIGH
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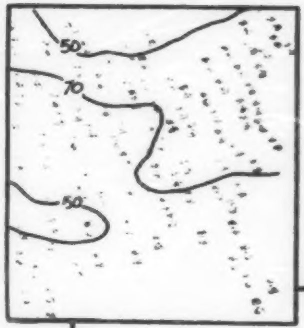
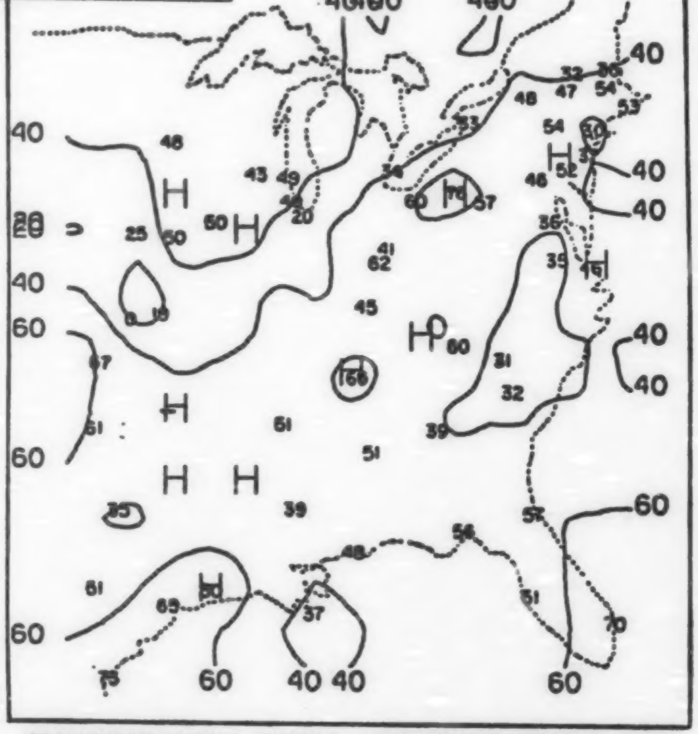
1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE


40
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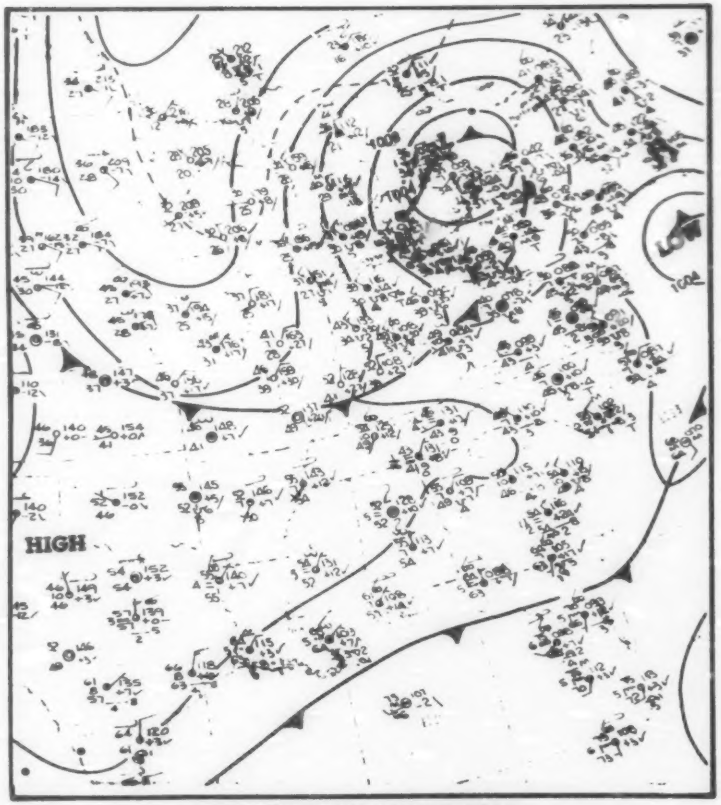
166
60
32
31
39

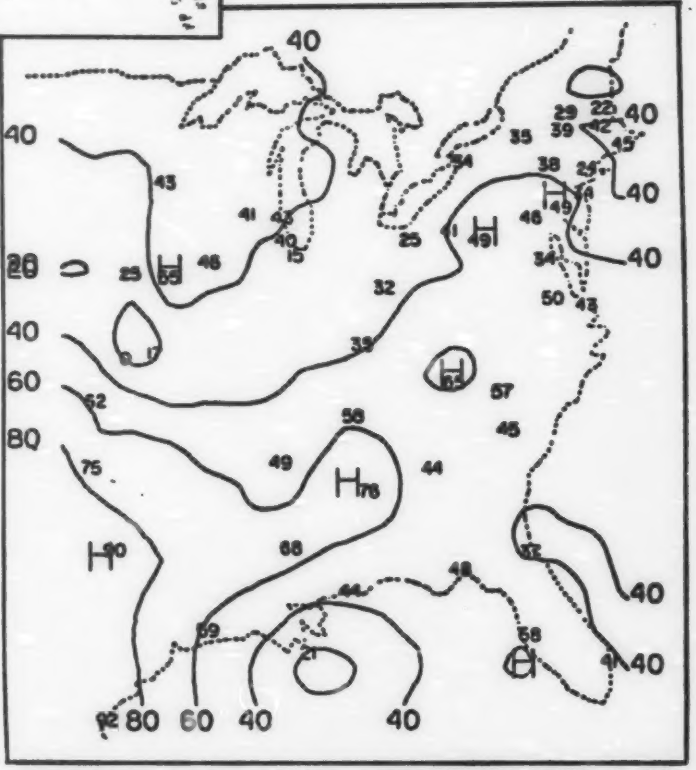
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, MAY 5, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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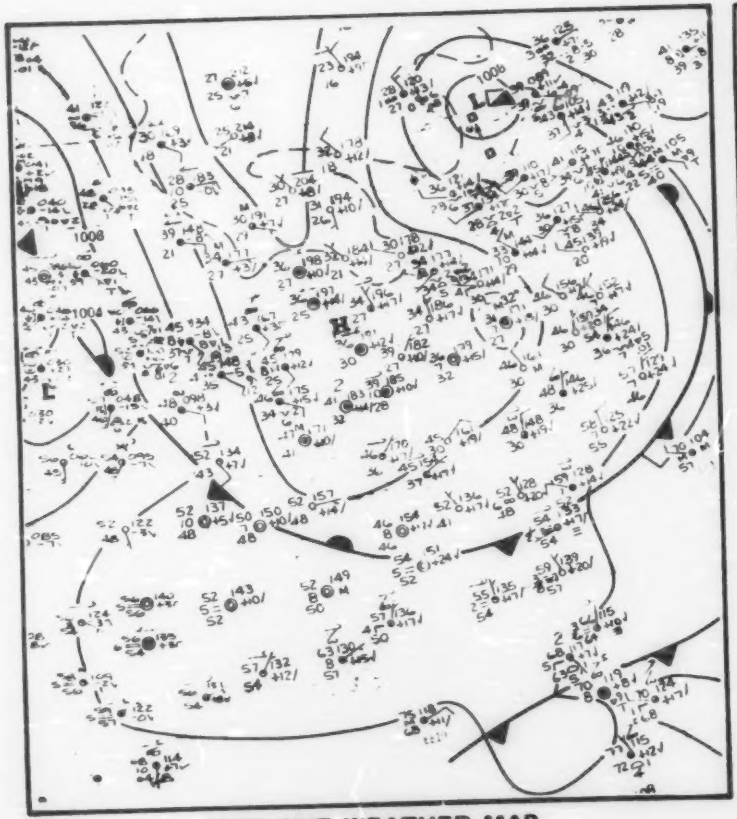
40
H

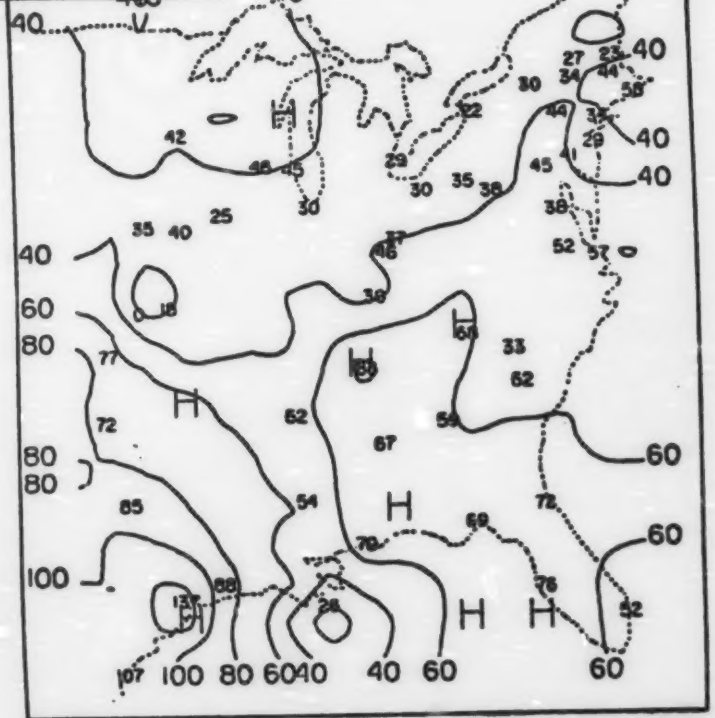
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, MAY 6, 1974


1008
1004
1006
L
H
L

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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107
100
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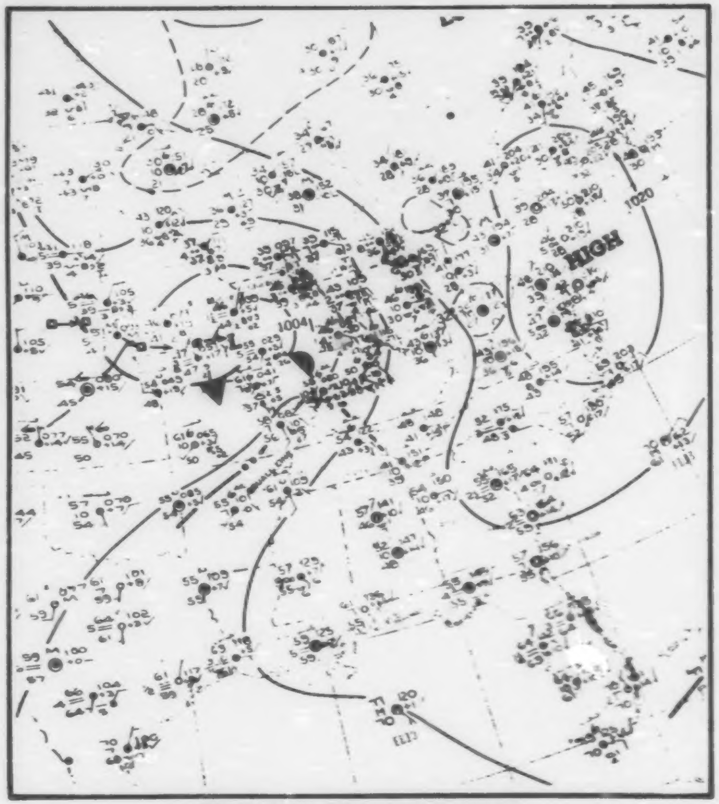
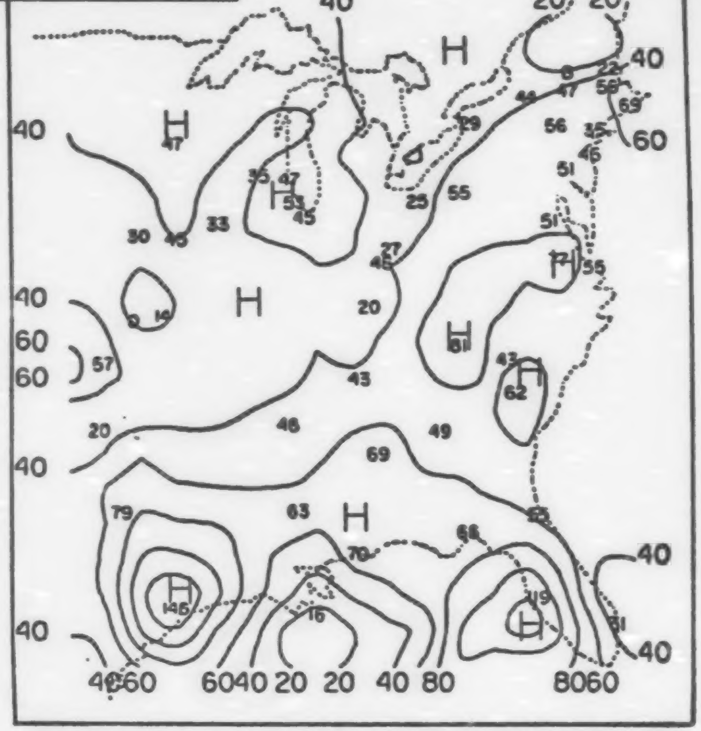
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, MAY 7, 1974


HIGH
1020
1004

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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H
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H
H
H
40
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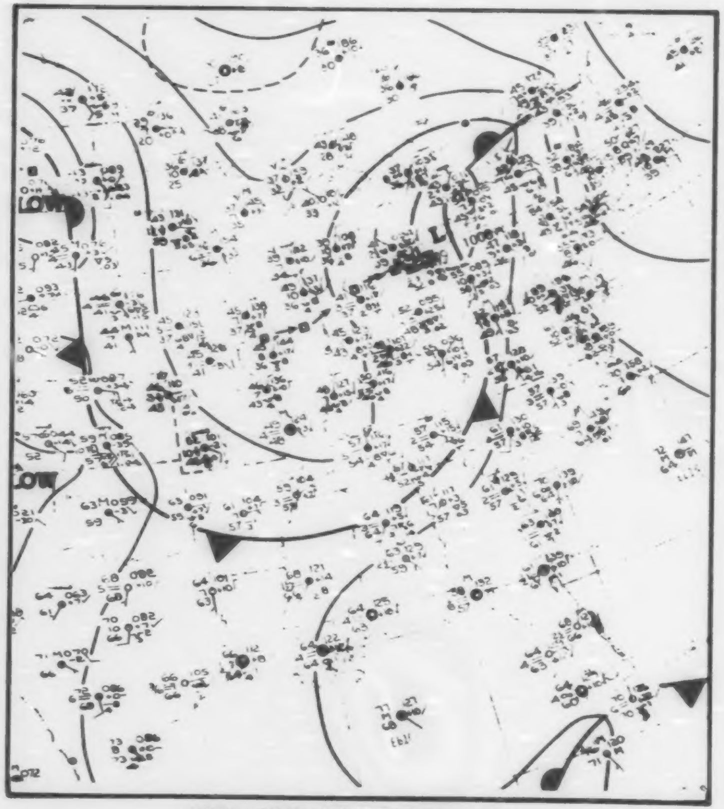
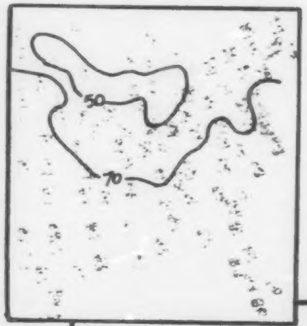
60
60
40
40
40
40
40 60
60 40
20
20
40
80
80 60
146
119

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

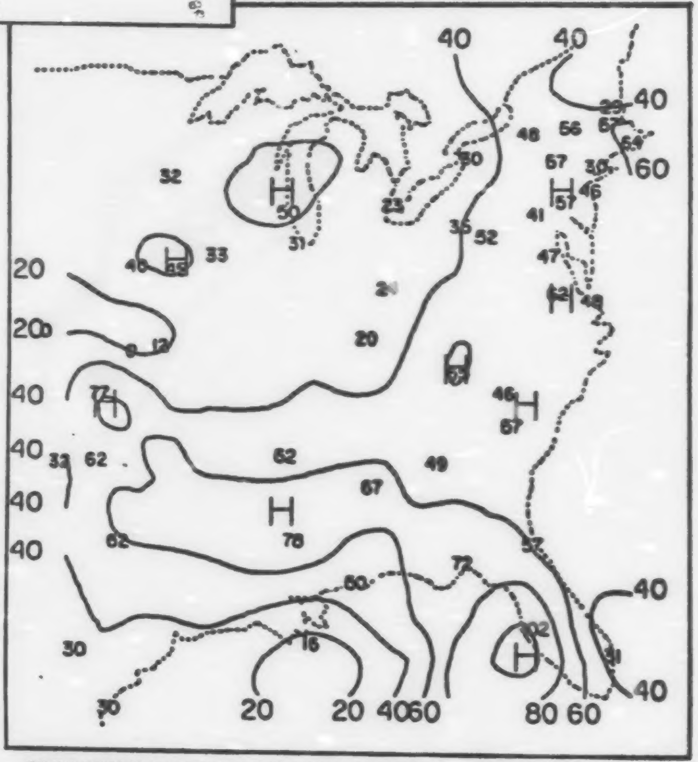
WEDNESDAY, MAY 8, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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56
67
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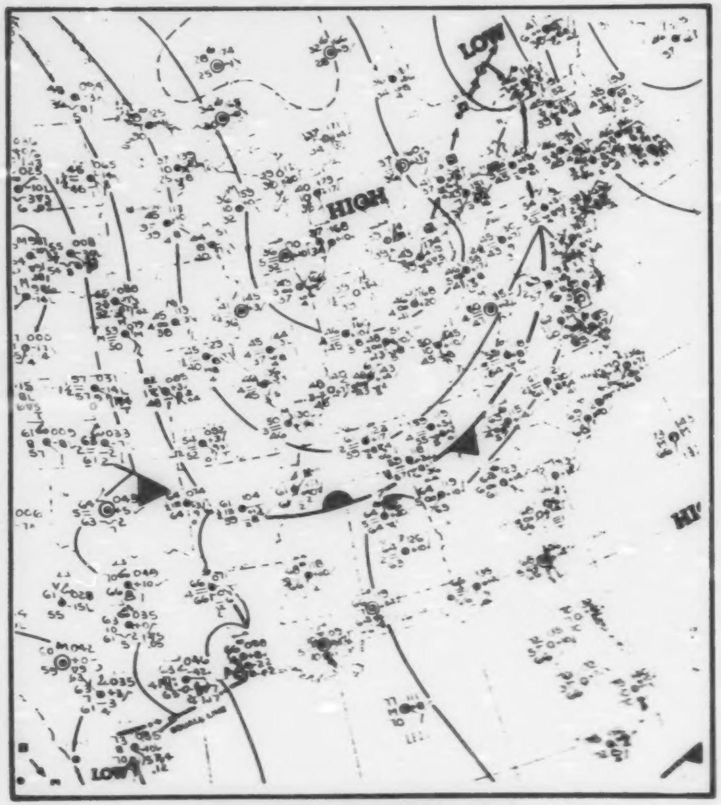
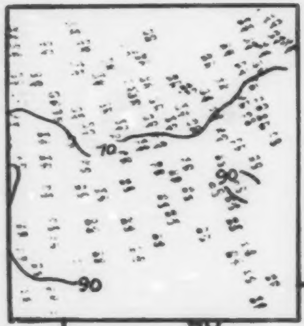
46
57
41
47
62
48
20
24
20
49
46
57
62
67
78
62
72
60
16
102
30
30
31
57
12

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

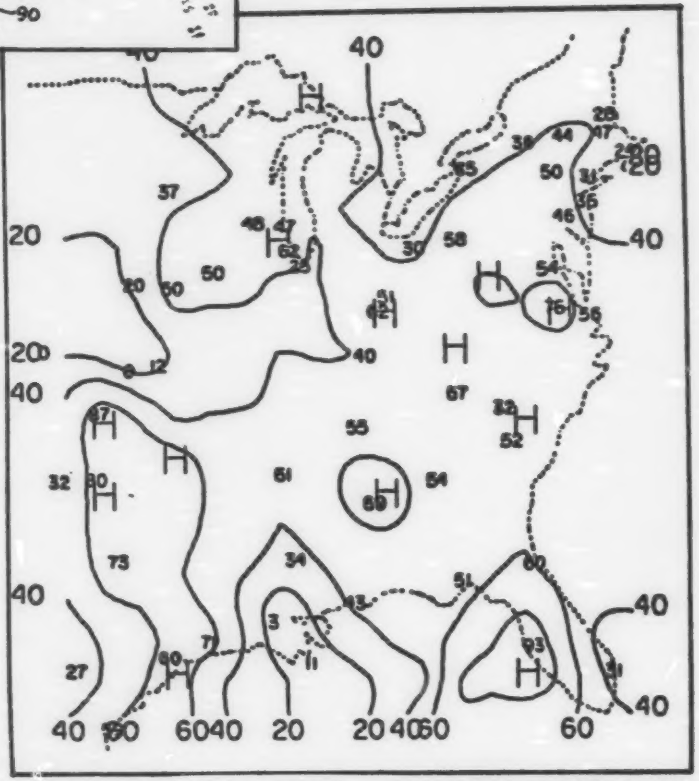
THURSDAY, MAY 9, 1974


LOW
HIGH
LOW

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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40
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20
40
40
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40
20
20
60
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60
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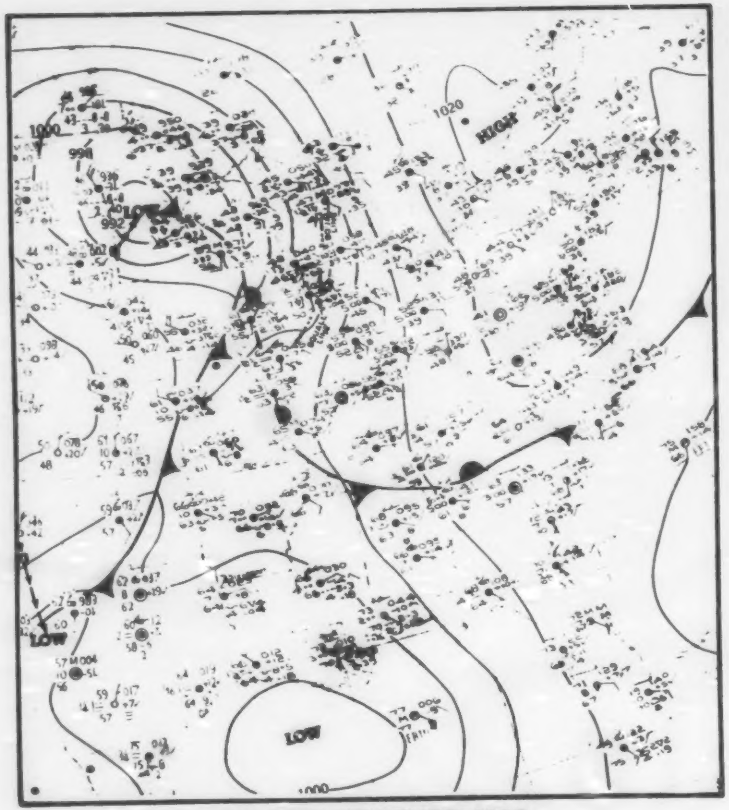
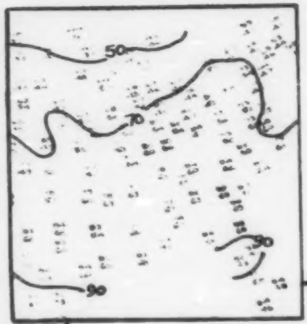
60
40
40
H

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

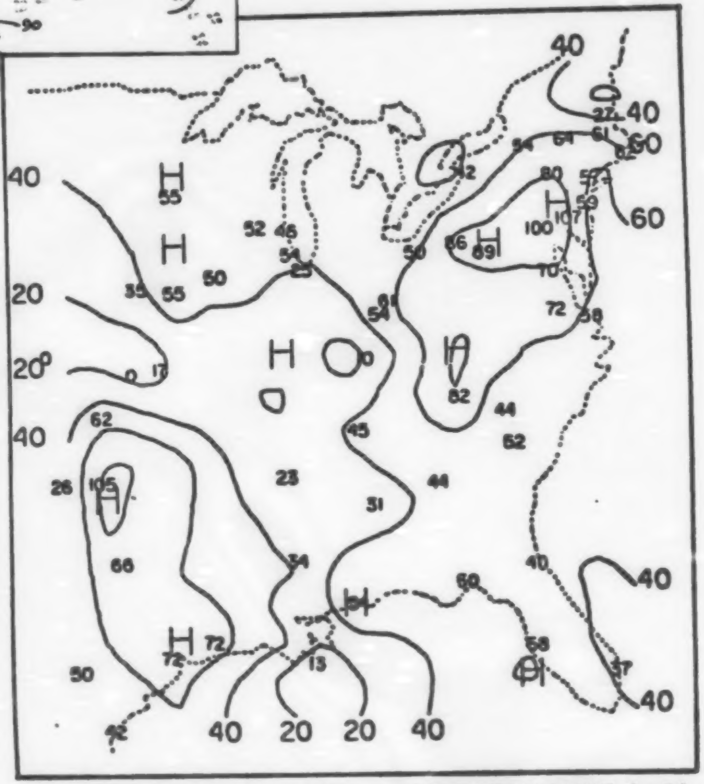
FRIDAY, MAY 10, 1974


HIGH
1020
LOW
LOW
LOW
1000
992
998

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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105
26
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72
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62
17
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25
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56
69
100
107
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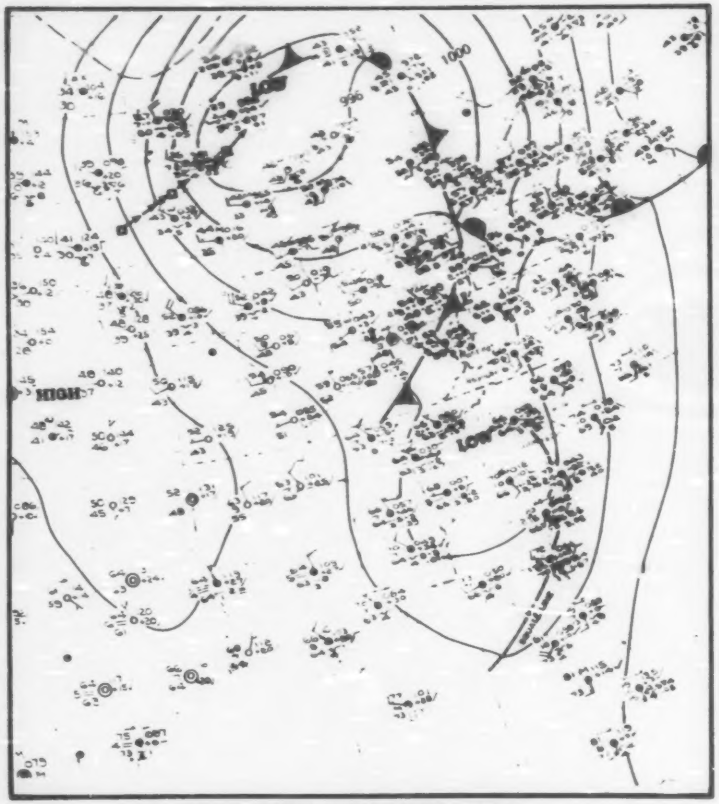
61
64
54
52
27
70
72
38
62
44
52
44
45
23
31
54
13
40
60
58
37
62

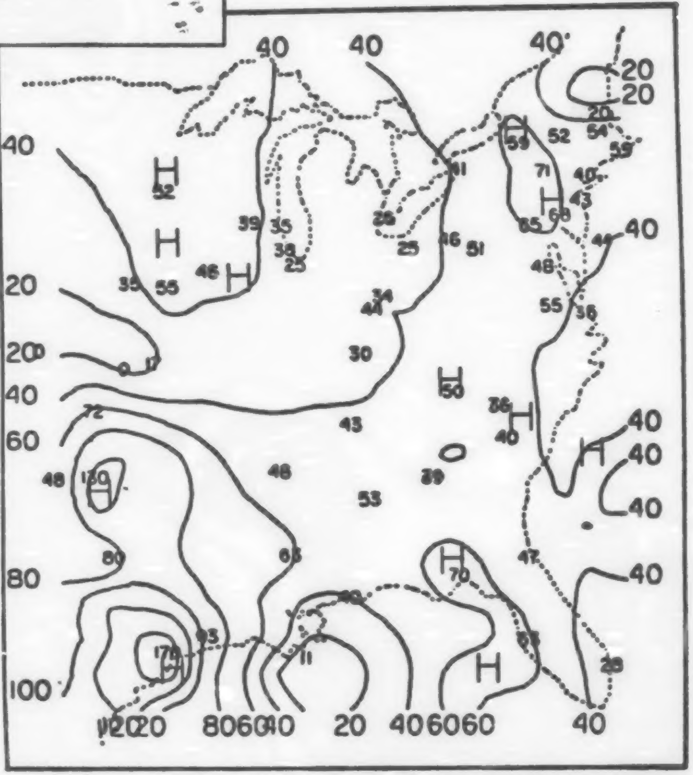
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, MAY 11, 1974


LOW
996
1000
HIGH
LOW

**1200 GMT WEATHER MAP**

**MAXIMUM-
MINIMUM
TEMPERATURE**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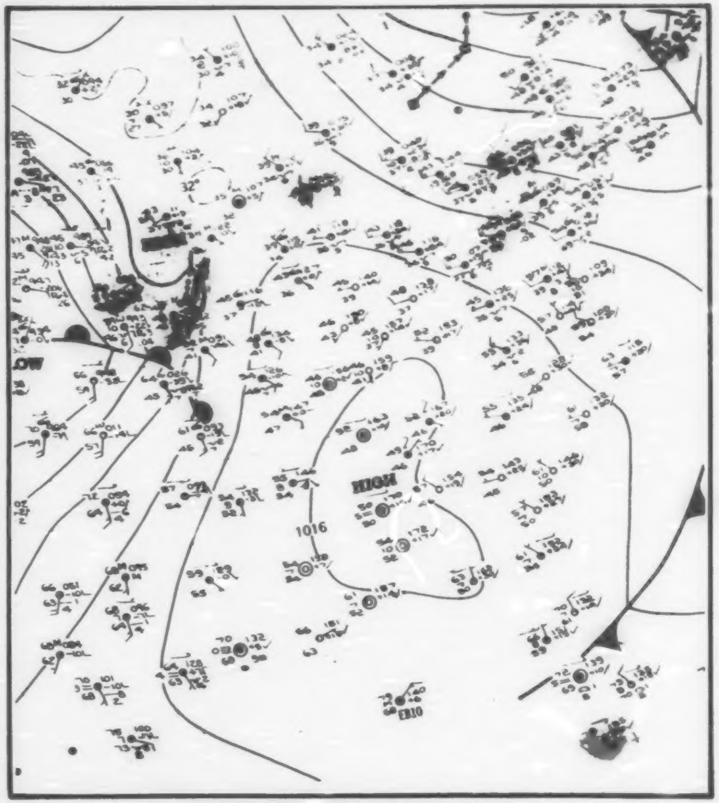
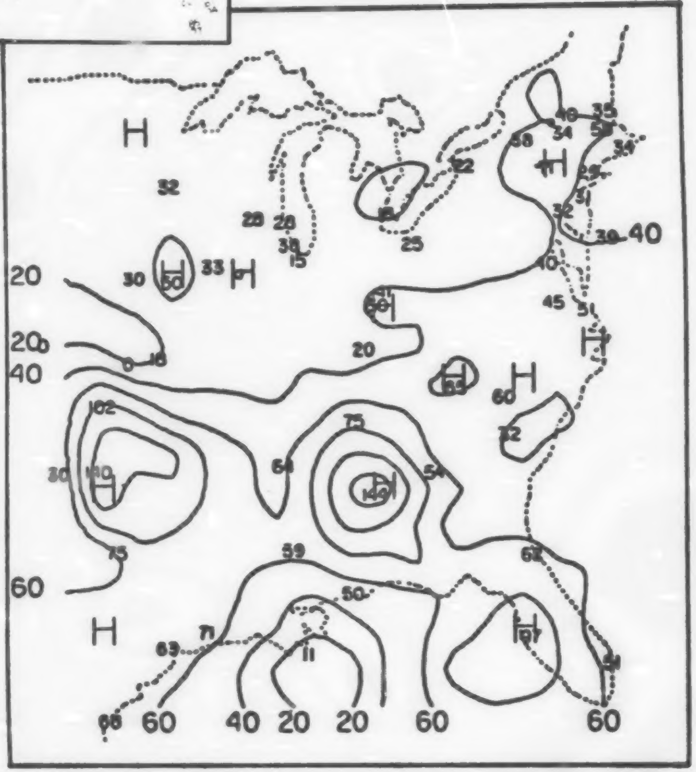
**MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)**

SUNDAY, MAY 12, 1974


LOW
HIGH
1016

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE


H
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102
75
149
54
59
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71
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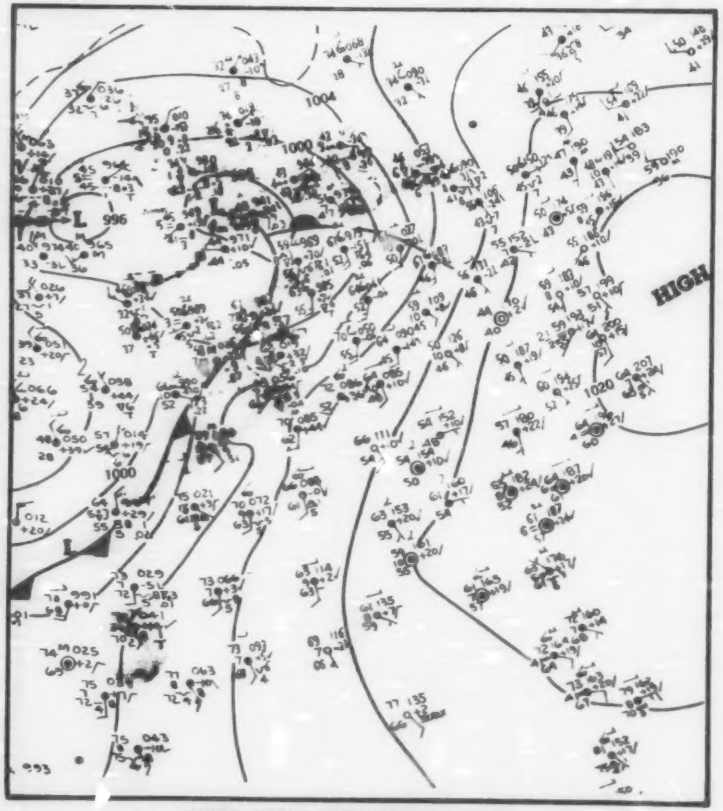
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, MAY 13, 1974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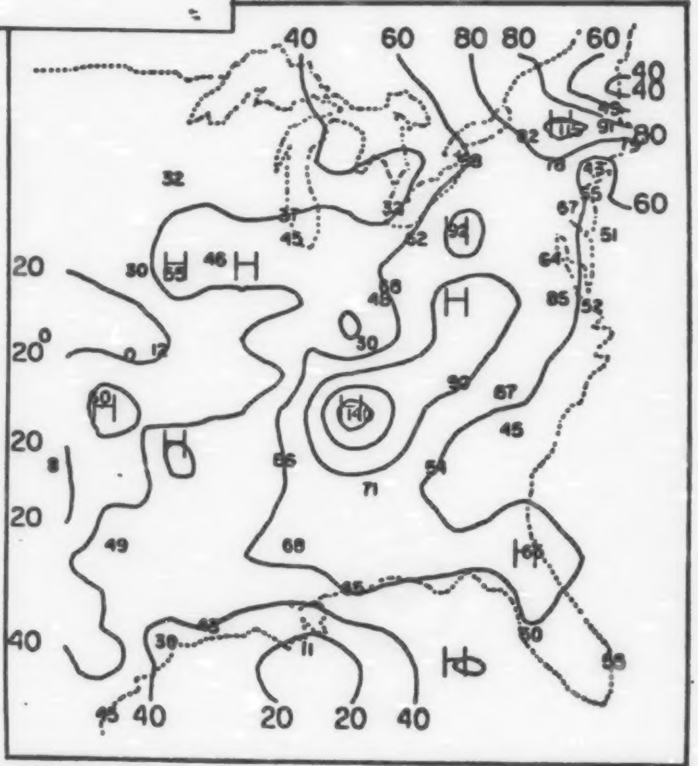
996
1000
1004
1020
HIGH

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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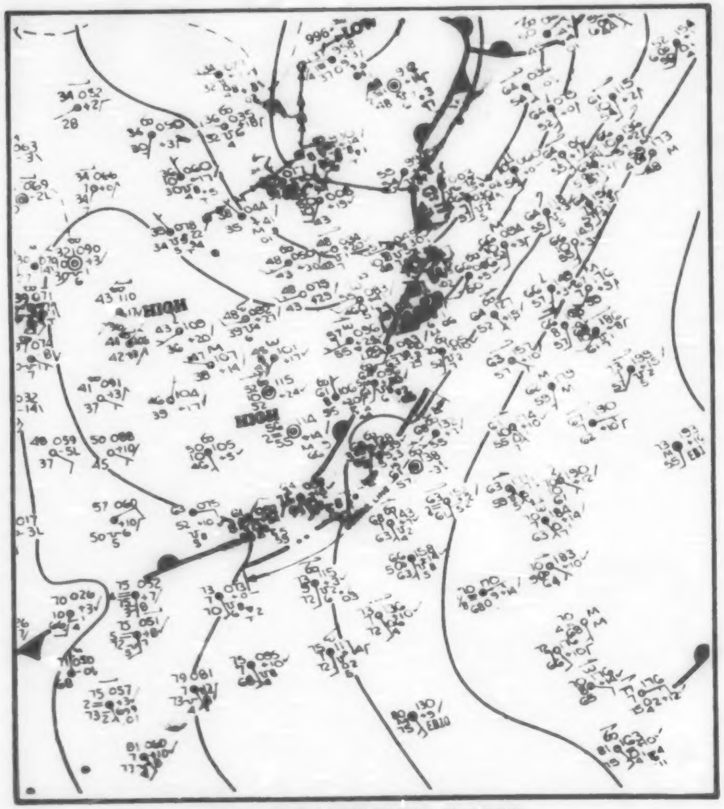
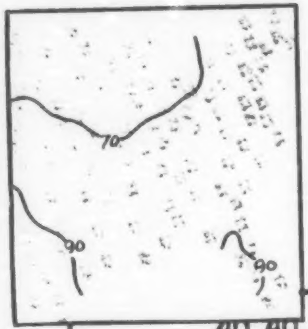
140

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

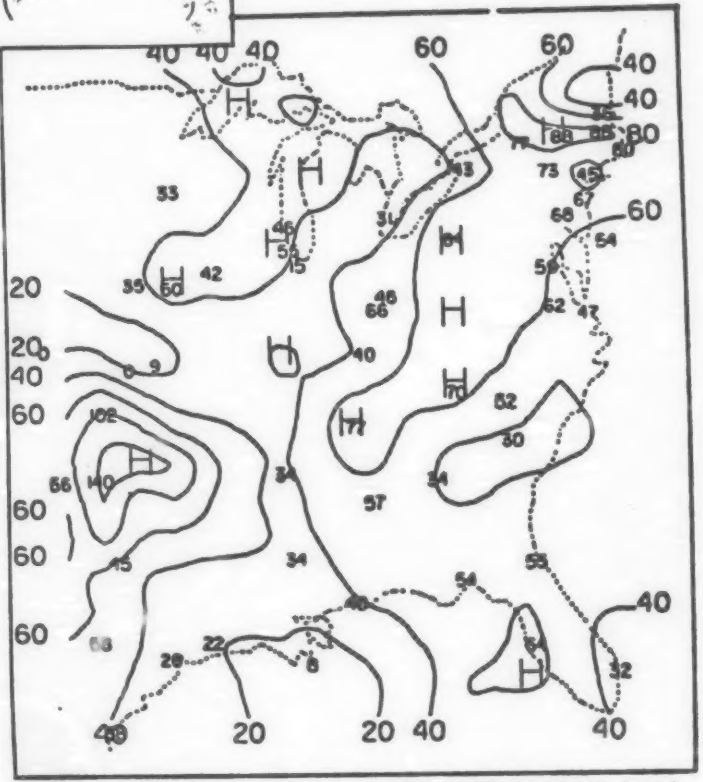
TUESDAY, MAY 14, 1974


LOW
HIGH
HIGH

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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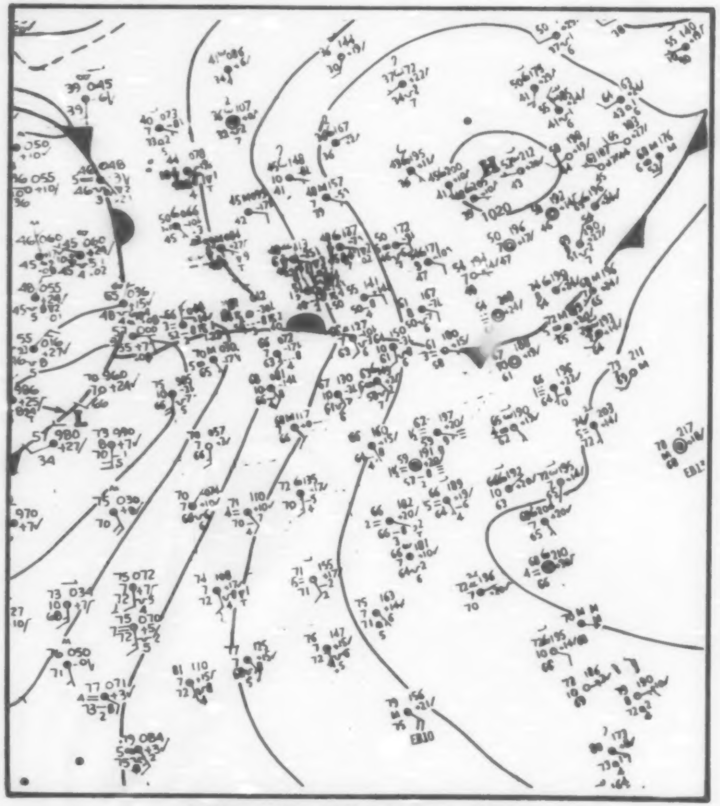
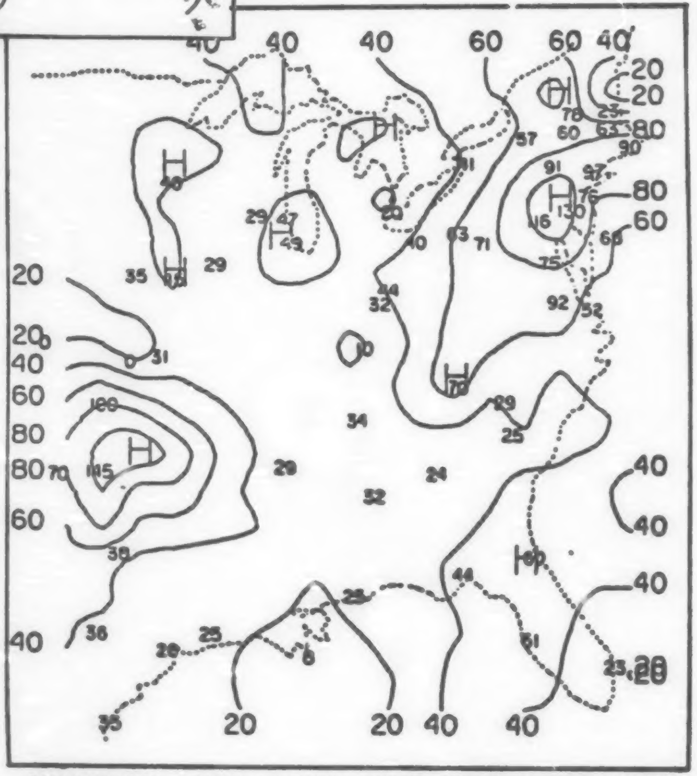
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, MAY 15, 1974



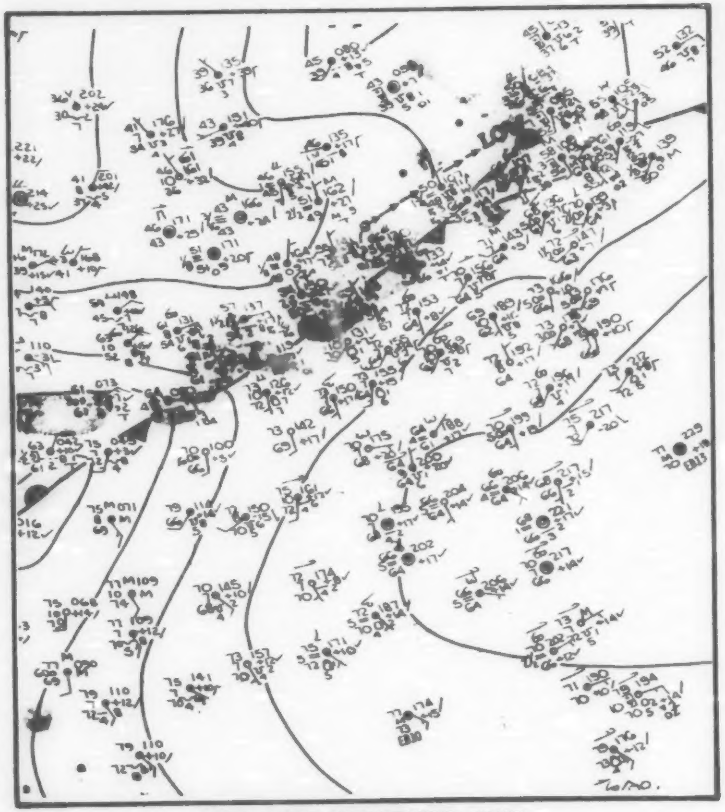
1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE

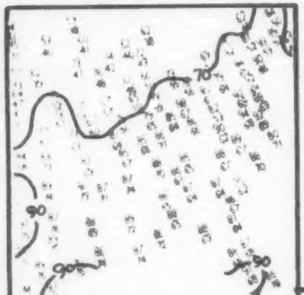


MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

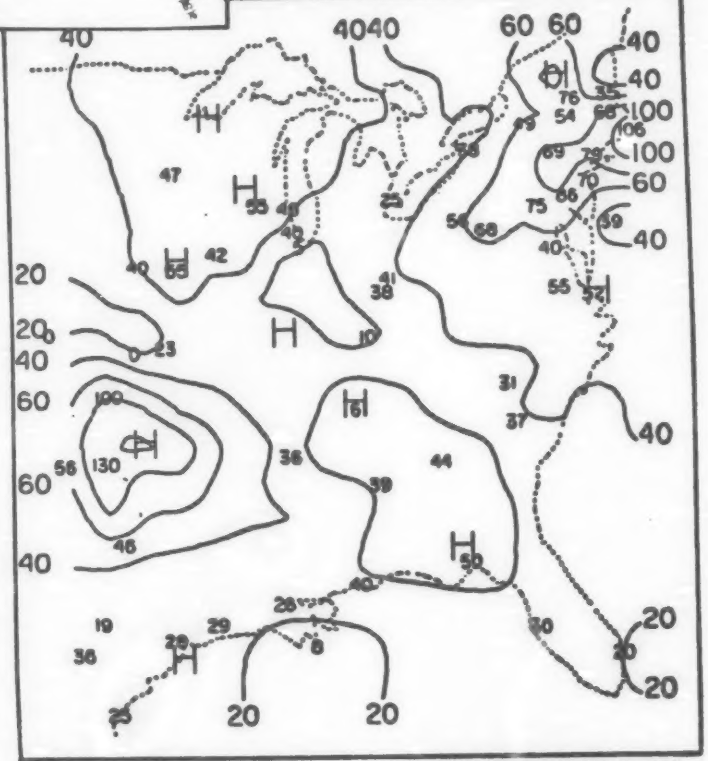
THURSDAY, MAY 16, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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4040
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76
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106
79
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41
38
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23
100
130
56
48
36
61
44
39
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36
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30
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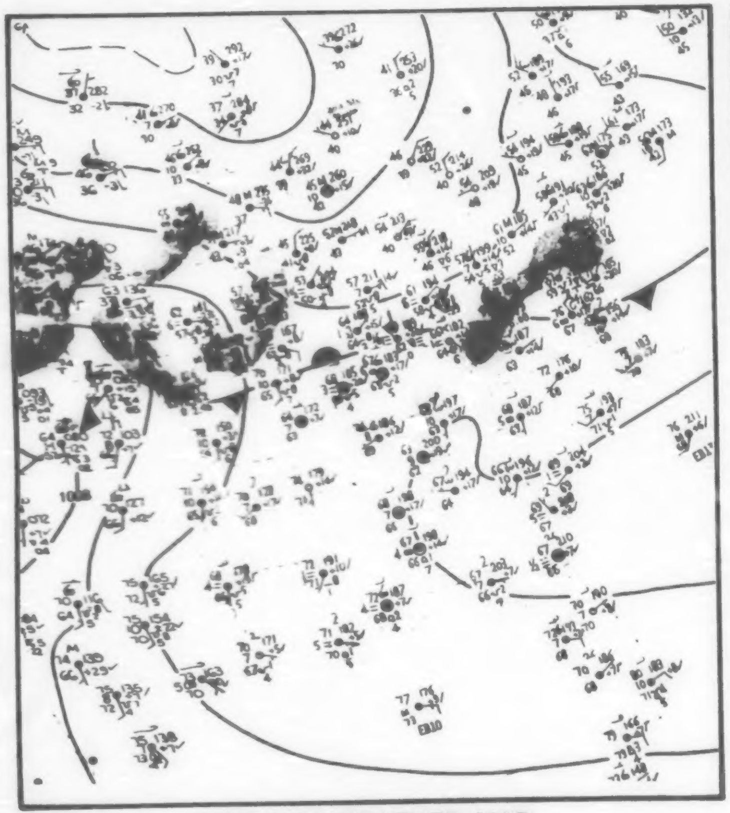
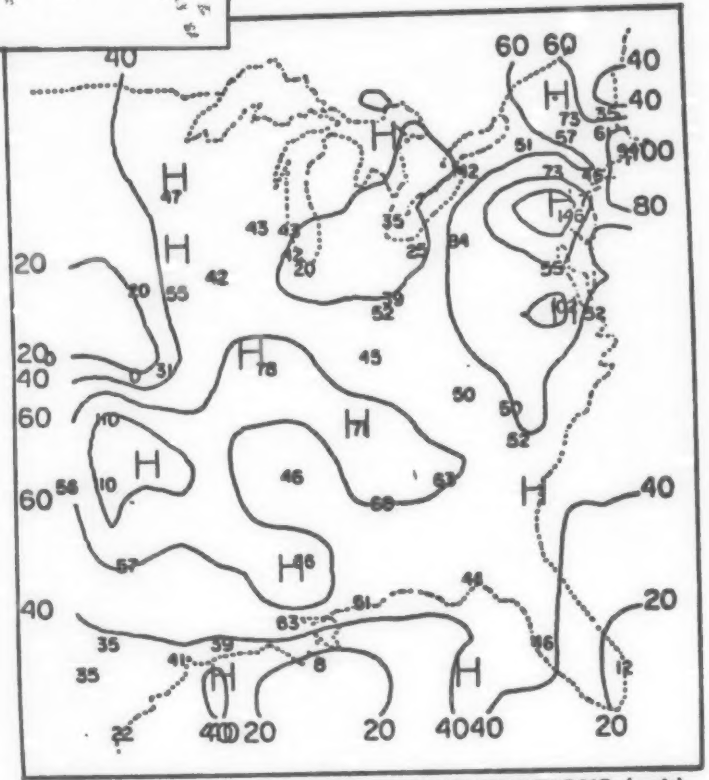
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, MAY 17, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE


40
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4040
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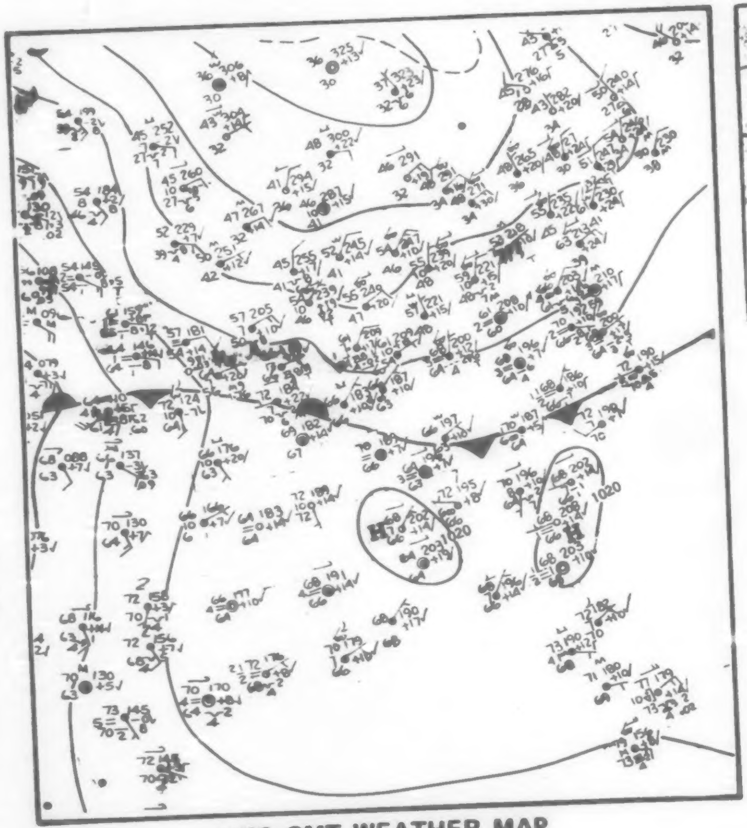
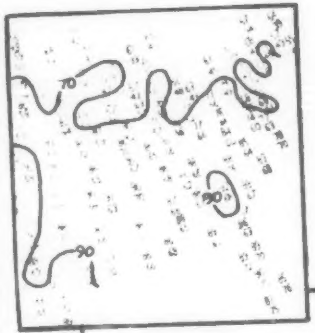
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

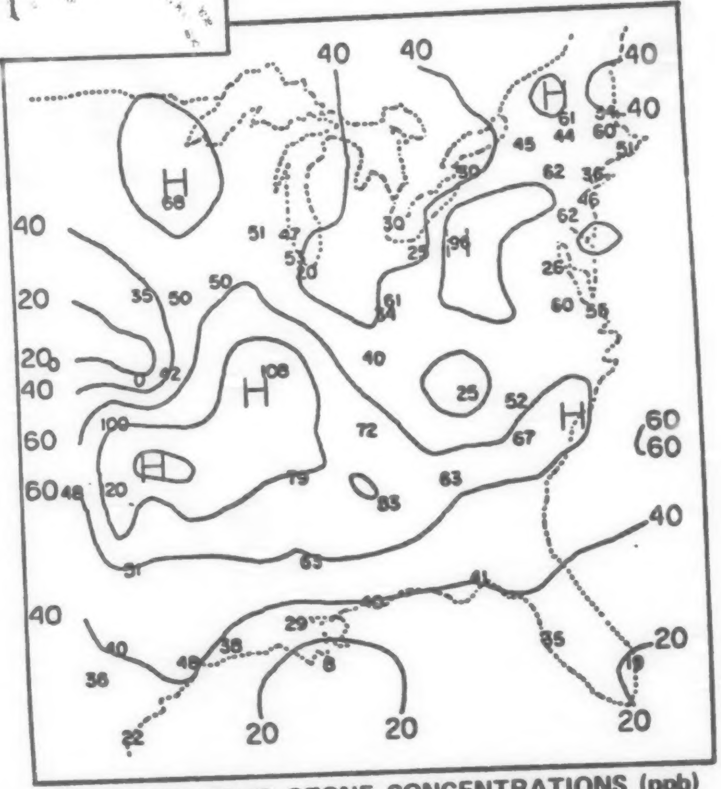
SATURDAY, MAY 18, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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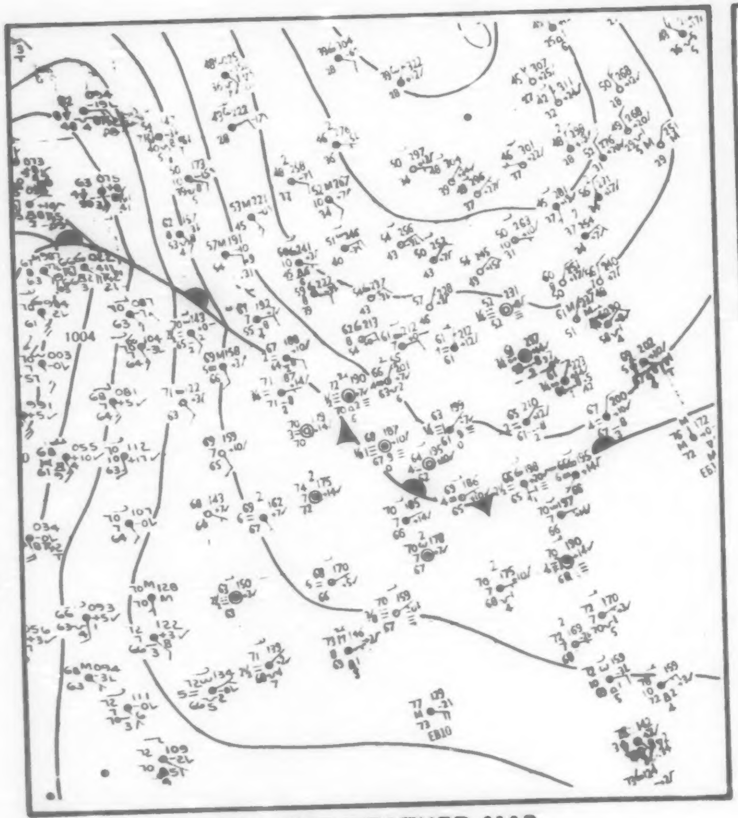
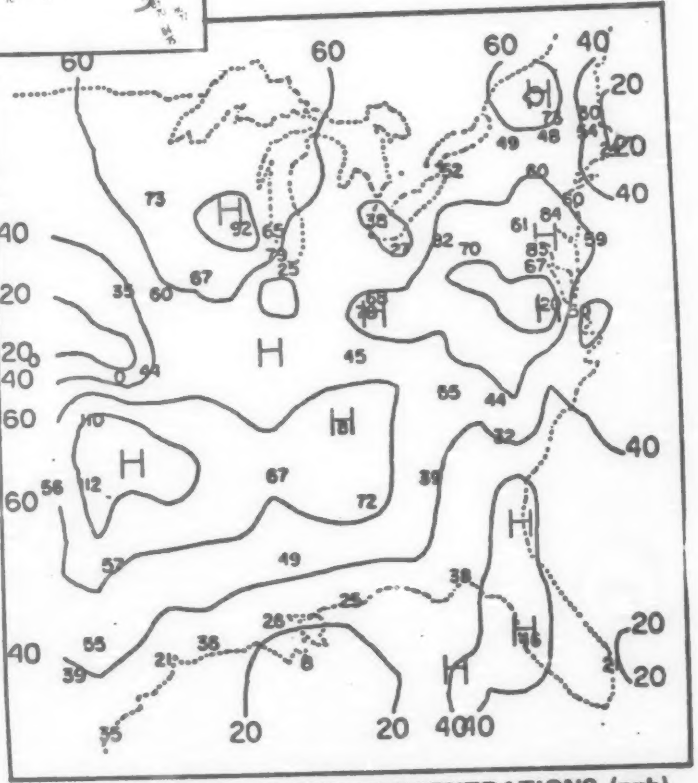
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, MAY 19, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE


60
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73
92
65
79
25
67
60
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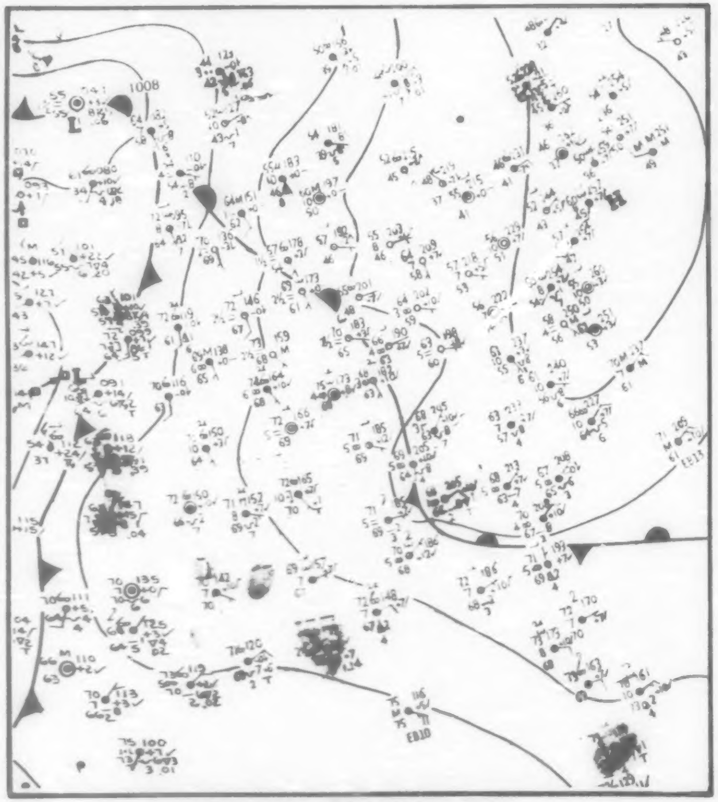
94
45
110
56
12
57
67
72
49
55
44
32
39
38
25
28
36
21
55
39
35
8
52
49
48
73
80
84
61
85
67
70
82
35
27
59
60

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, MAY 20, 1974



**1200 GMT WEATHER MAP**

70
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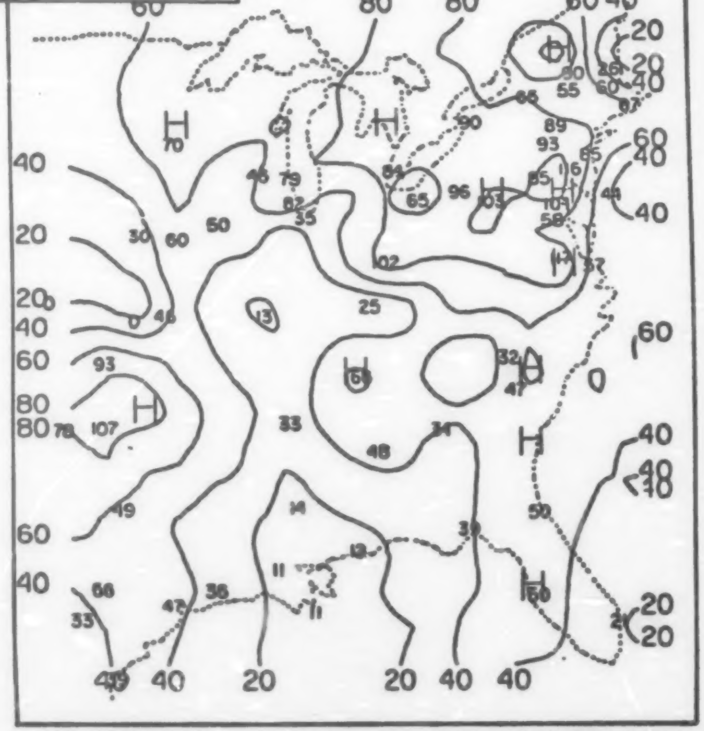
**MAXIMUM-MINIMUM TEMPERATURE**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20
20
40
40
20
20
H
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H
H
H
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H
70
107
93
65
96
103
102
25
13
33
48
50
60
30
79
82
35
90
89
93
85
55
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42
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49
14
11
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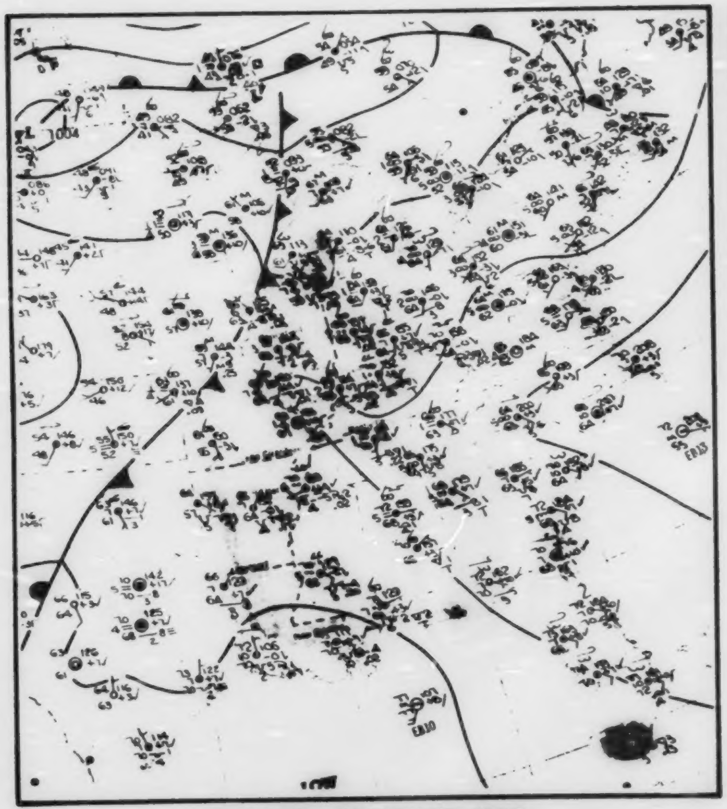
31
32
47

**MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)**

TUESDAY, MAY 21, 1974



1200 GMT WEATHER MAP

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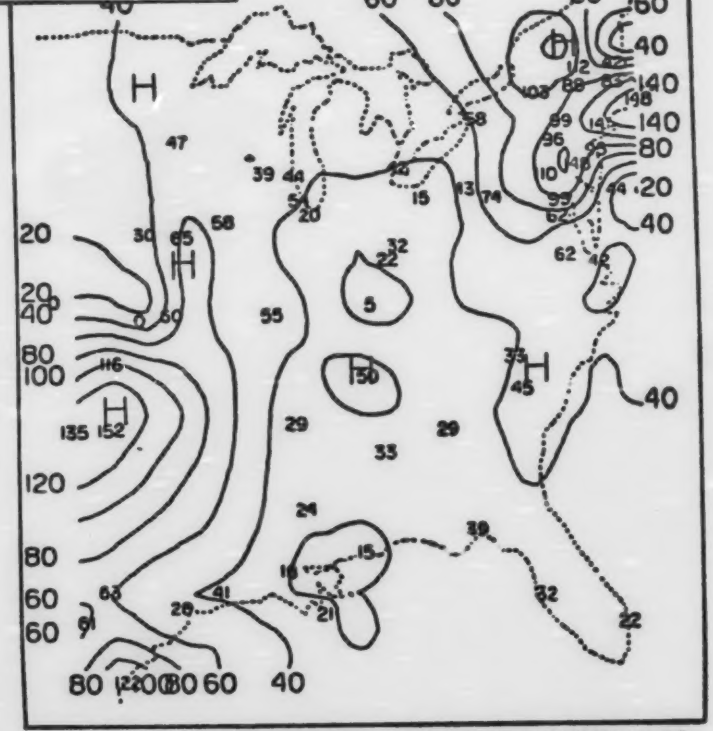
MAXIMUM-
MINIMUM
TEMPERATURE


H
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140
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120
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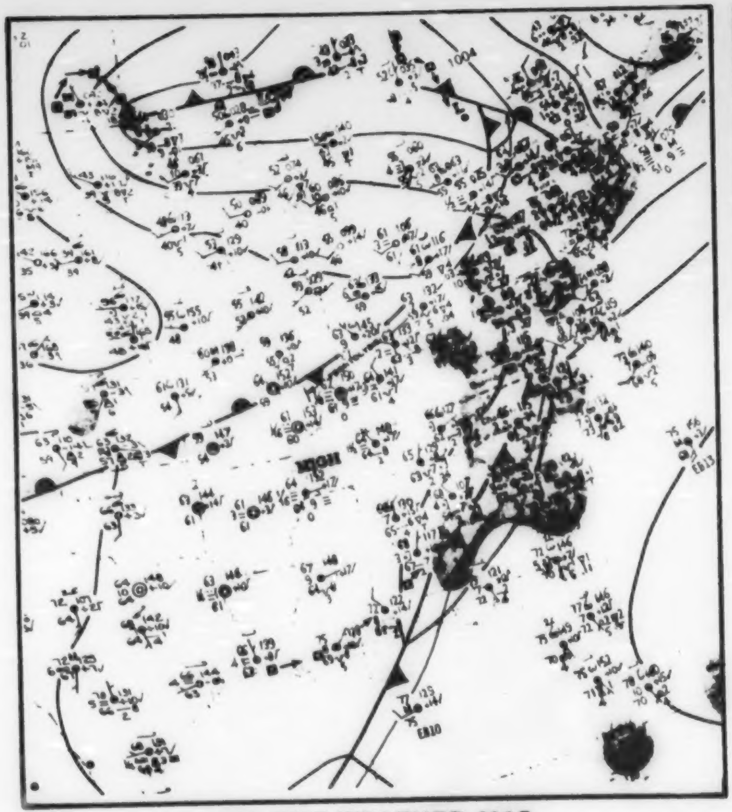
47
39
44
58
65
30
55
5
22
32
150
29
33
29
24
15
16
21
39
32
22
45
35
62
15
20
116
135
152
63
41
26

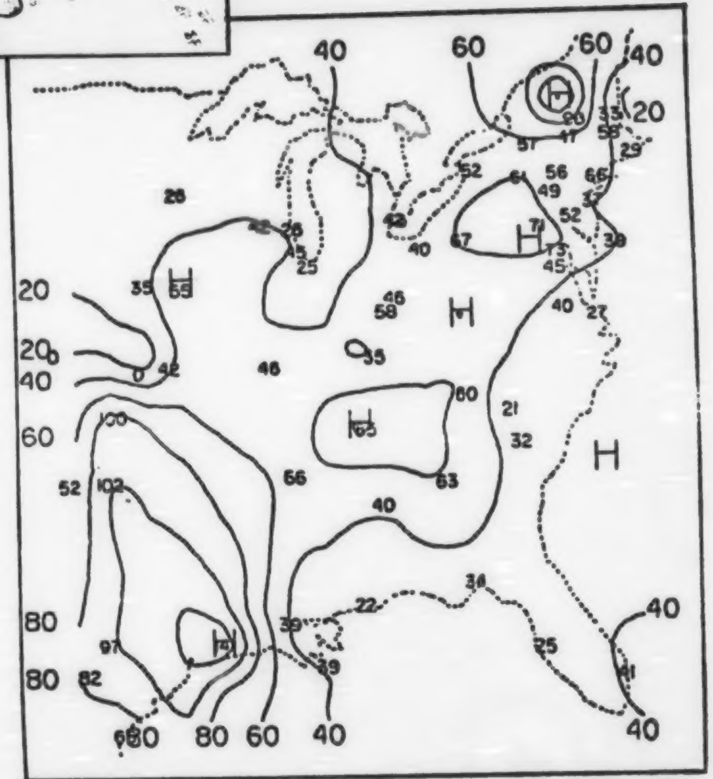
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, MAY 22, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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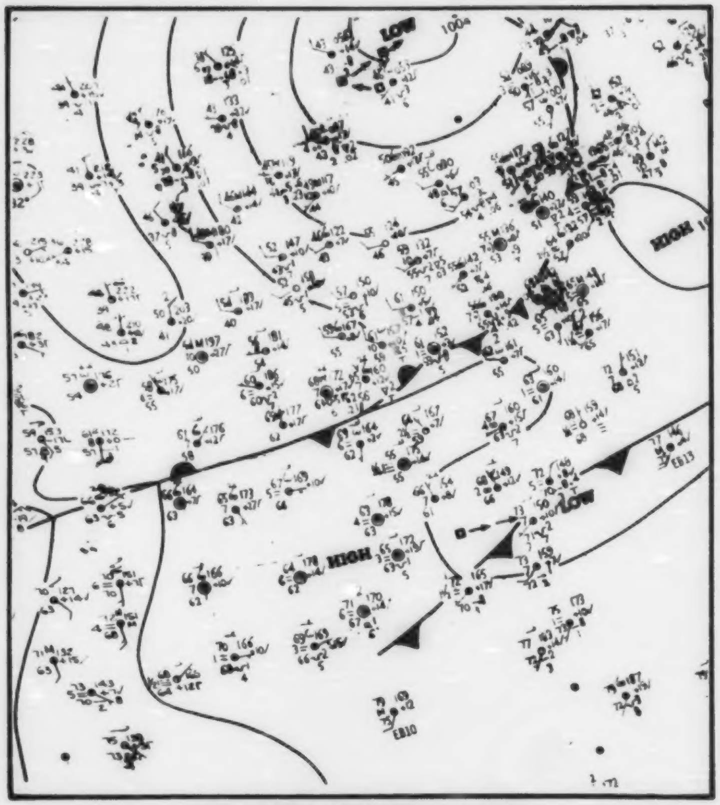
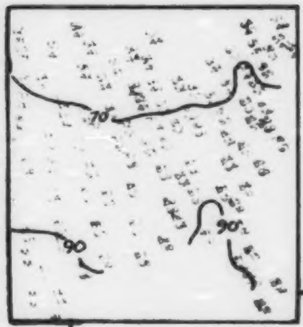
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

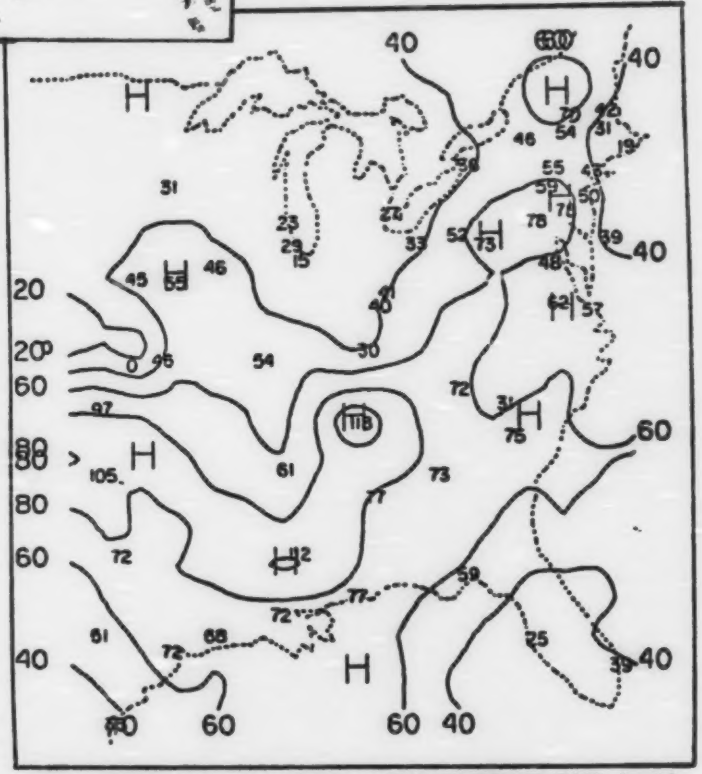
THURSDAY, MAY 23, 1974


LOW
LOW
HIGH
HIGH
1004

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE


H
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46
54
96
97
105
61
118
73
77
112
72
72
68
61
72
30
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33
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70
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31
19
45
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76
78
73
52
48
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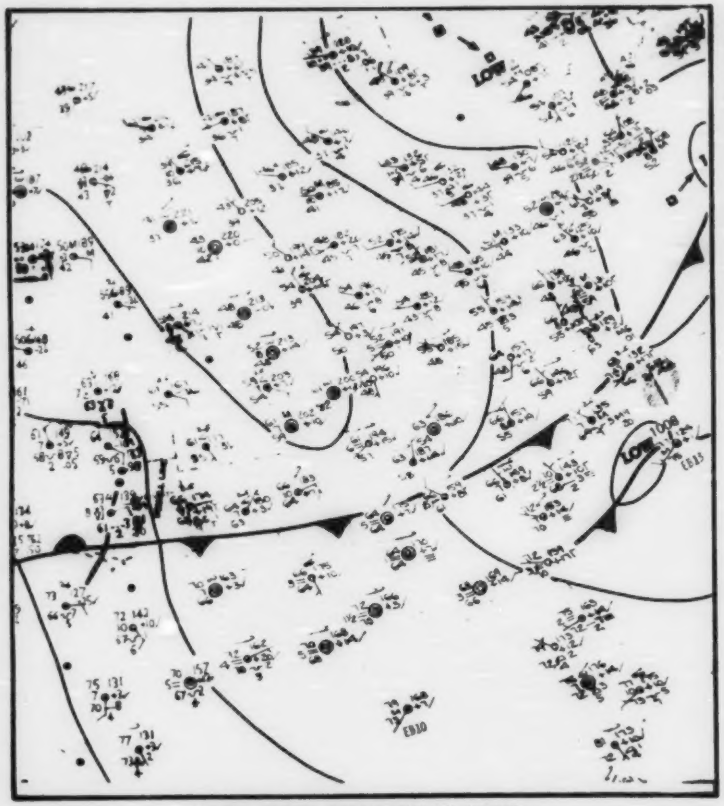
62
57
72
31
75
59
25
39

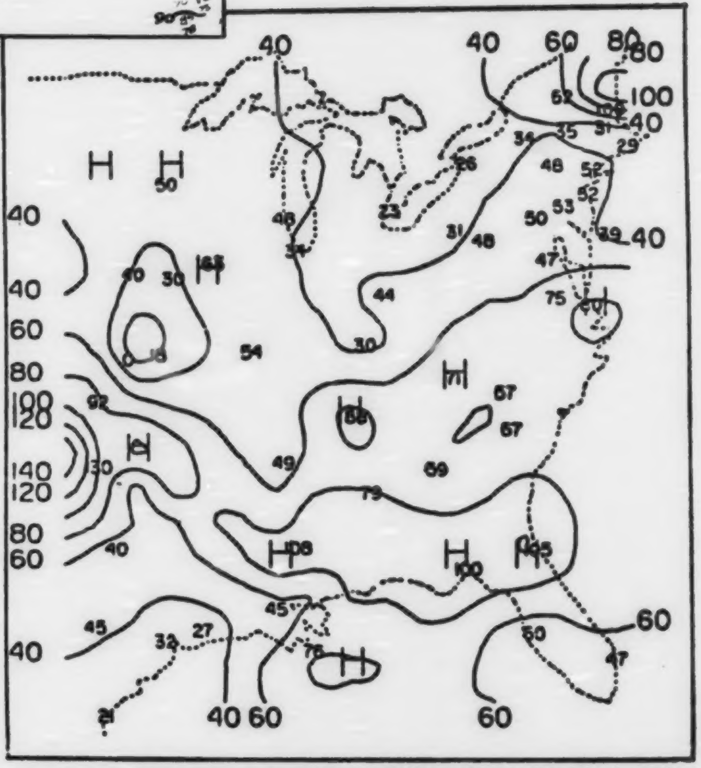
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, MAY 24, 1974



1200 GMT WEATHER MAP

MAXIMUM-MINIMUM TEMPERATURE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120
140
120
80
60
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40 60
60
60
40
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80
80
100
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40
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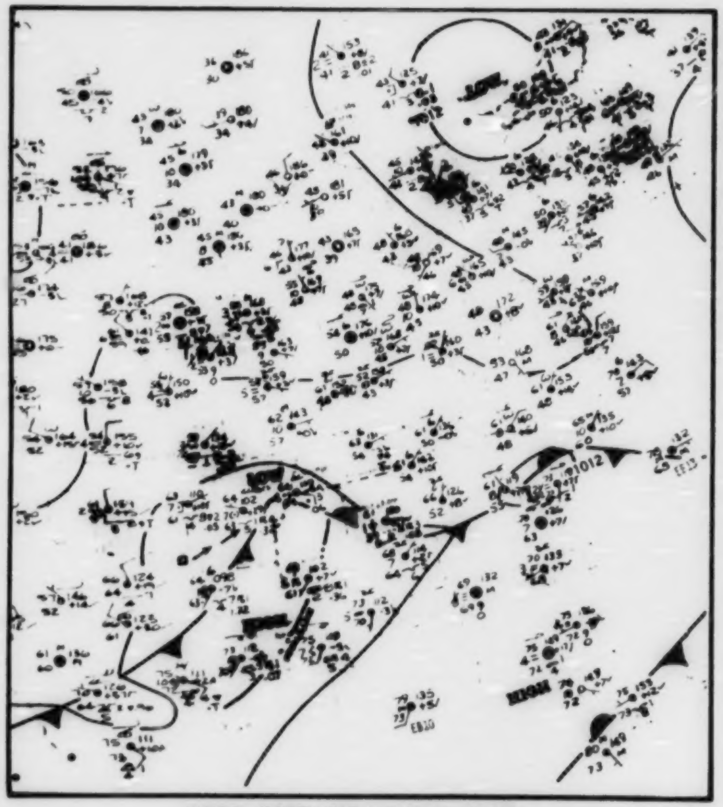
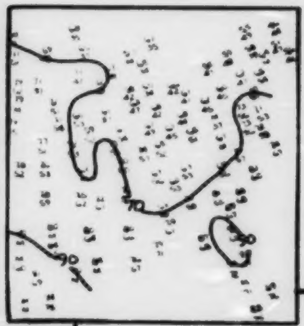
50

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

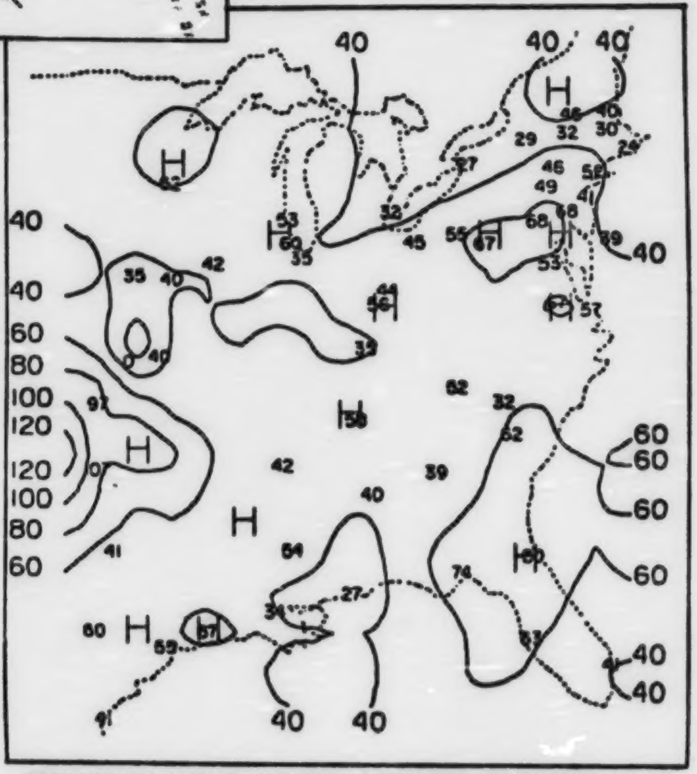
SATURDAY, MAY 25, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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35
40
42
97
41
60
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57
64
42
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56
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60
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68
68
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49
58
41
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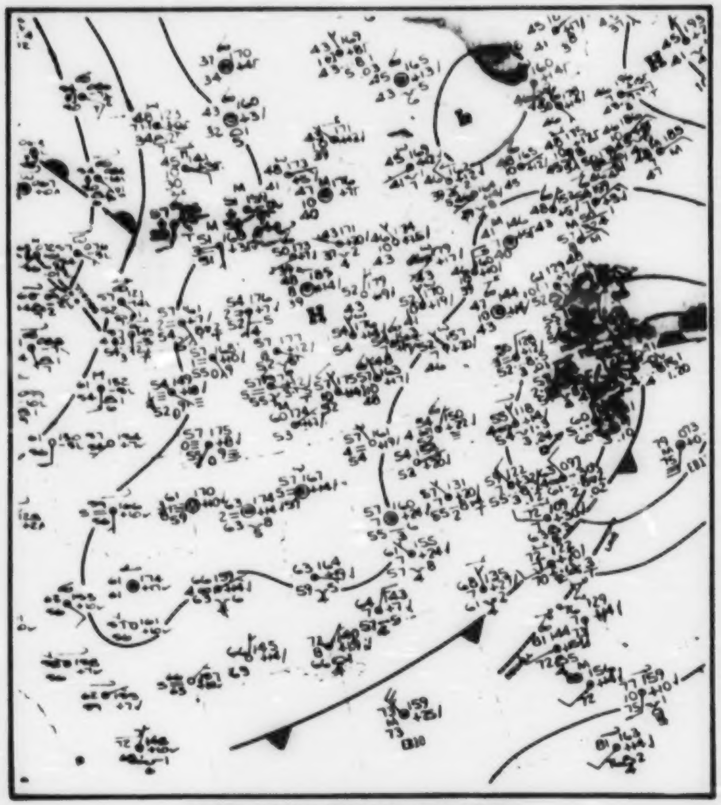
30
27
32
62
74
60
63
27
31

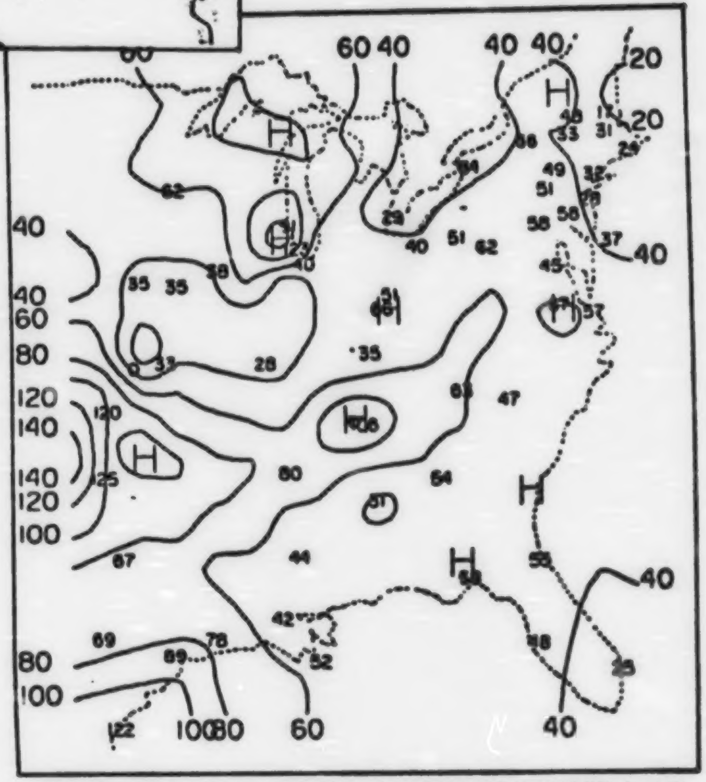
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, MAY 26, 1974



1200 GMT WEATHER MAP

MAXIMUM-MINIMUM TEMPERATURE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60 40
40 40
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120
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140
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100
80
100
122
100 80
60
40
40
H
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106
62
35
35
58
28
33
35
63
47
54
80
44
67
69
89
78
42
52
58
58
25
37
56
49
51
58
40
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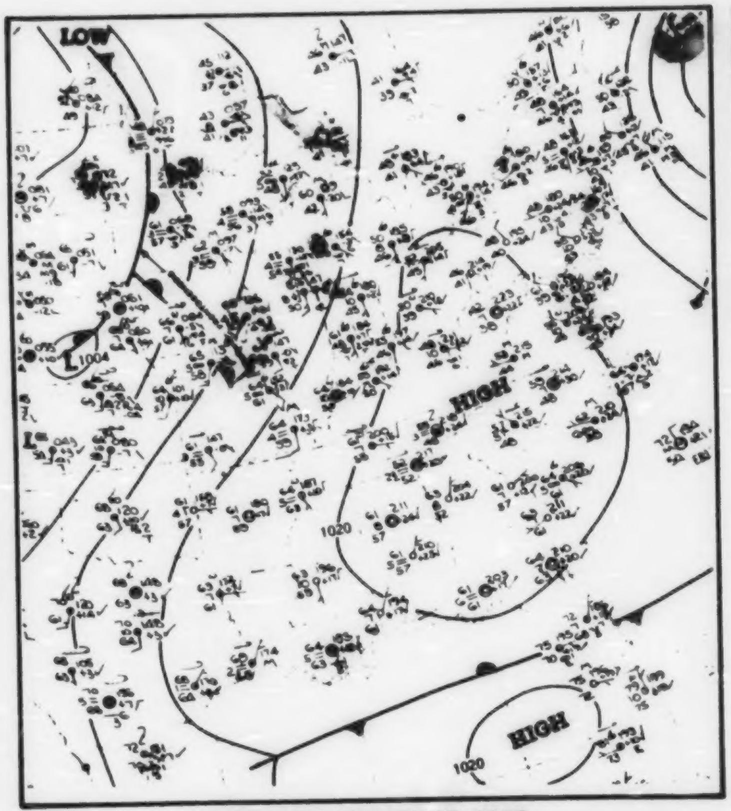
62
29
34
36
33
31
24

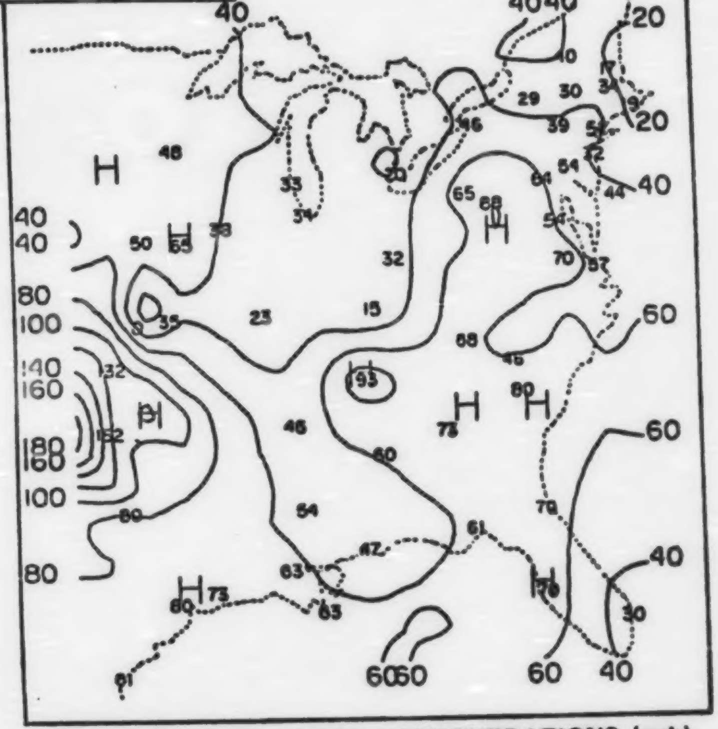
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, MAY 27, 1974


LOW
HIGH
HIGH
1020
1020
1004

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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6060
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100
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160
140
160
100
80
40
40
H
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193
152
132
48
50
65
33
34
32
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63
42
61
73
80
81
70
76
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57
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64
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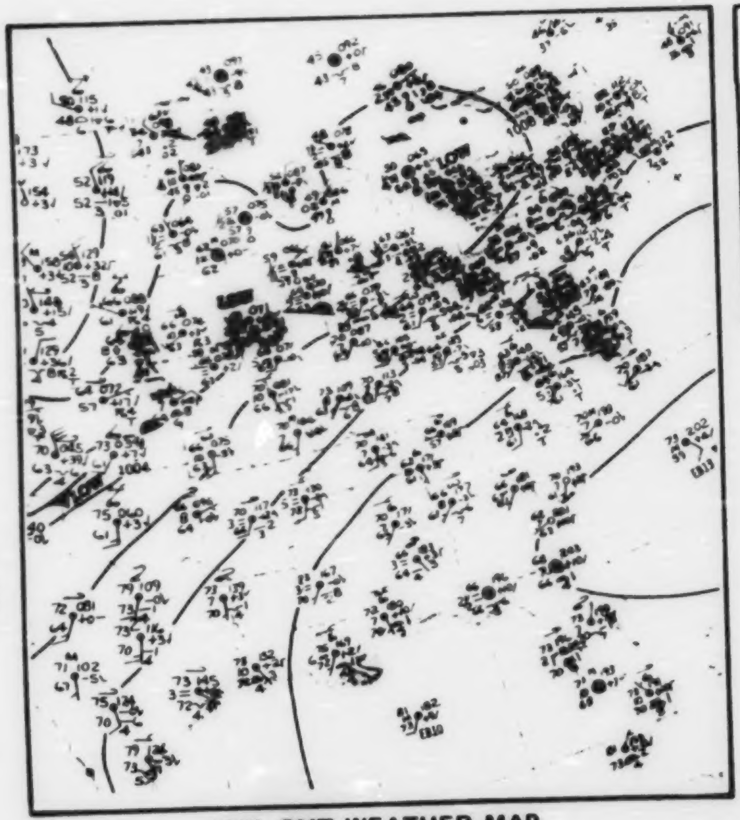
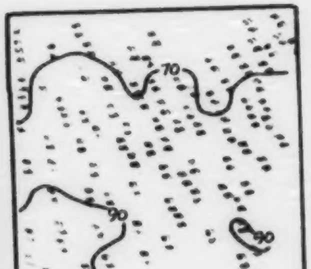
68
68
45
80
73
46
39
29
30
10
51
9
35

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

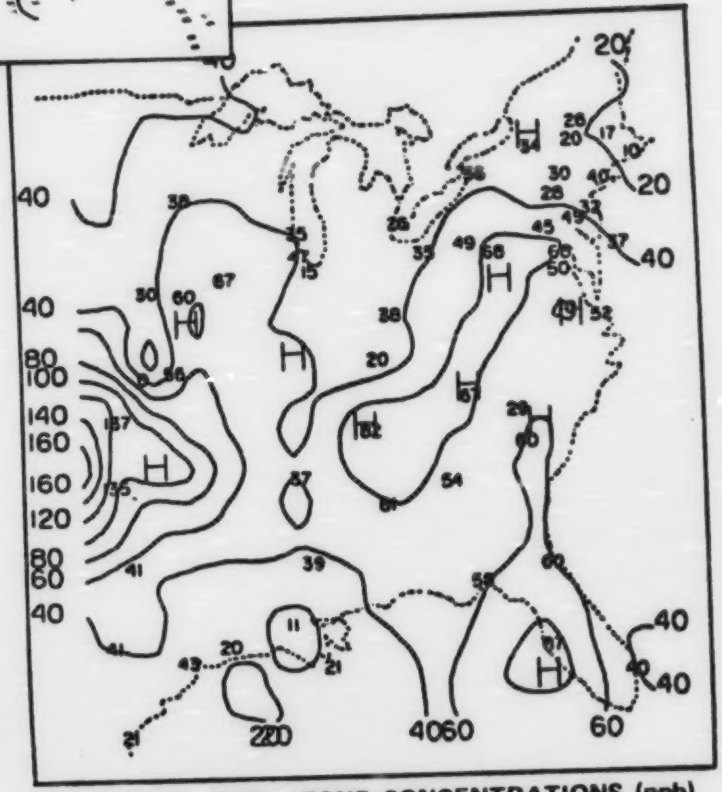
TUESDAY, MAY 28, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE


20
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160
160
120
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4060
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40
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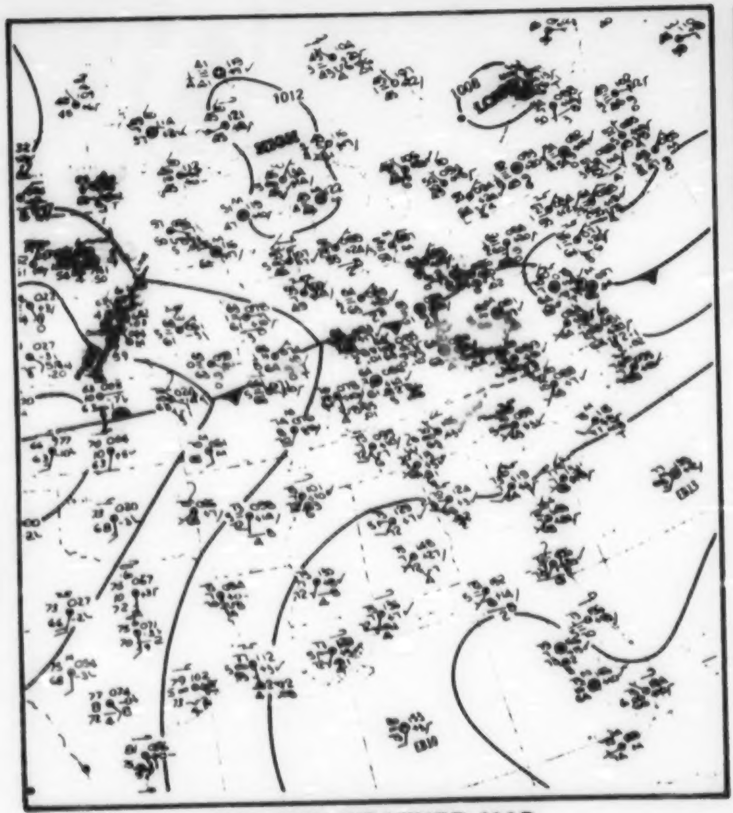
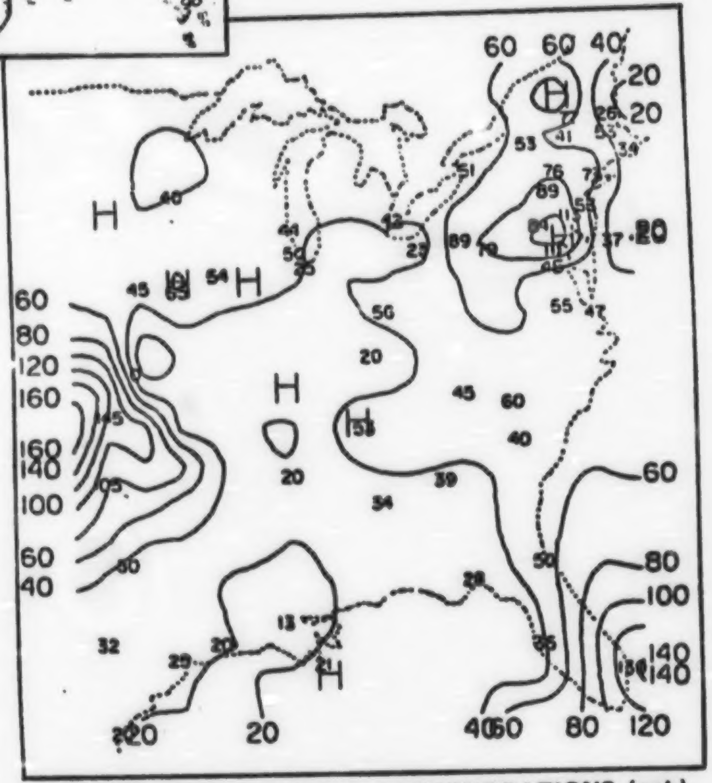
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, MAY 29, 1974


1012
1008
LOW

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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60
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160
160
140
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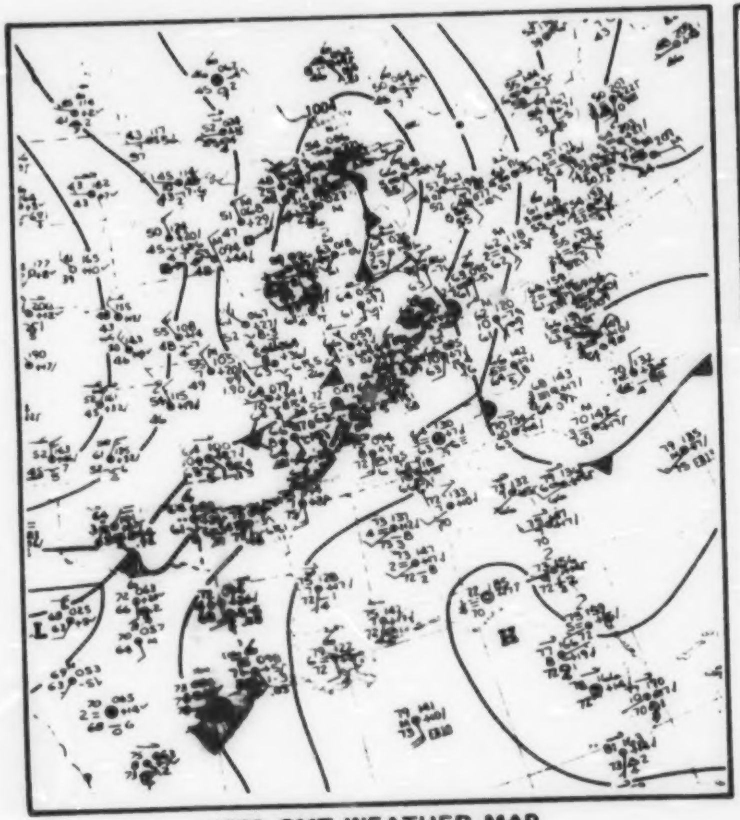
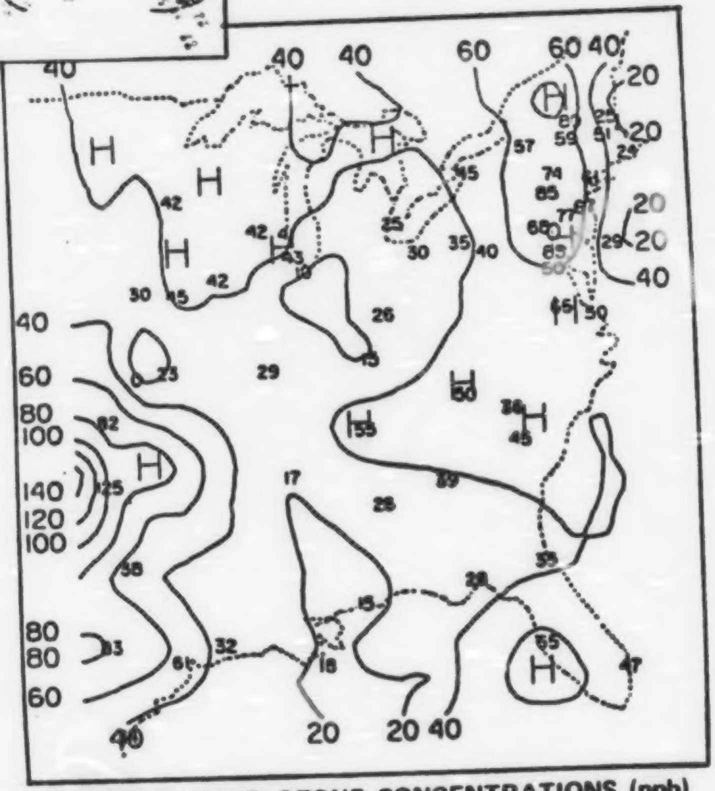
60
80
100
140
140
120
80
4060
20
220

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, MAY 30, 1974


1200 GMT WEATHER MAP

MAXIMUM-MINIMUM TEMPERATURE



40
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20
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42
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35
40
26
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17
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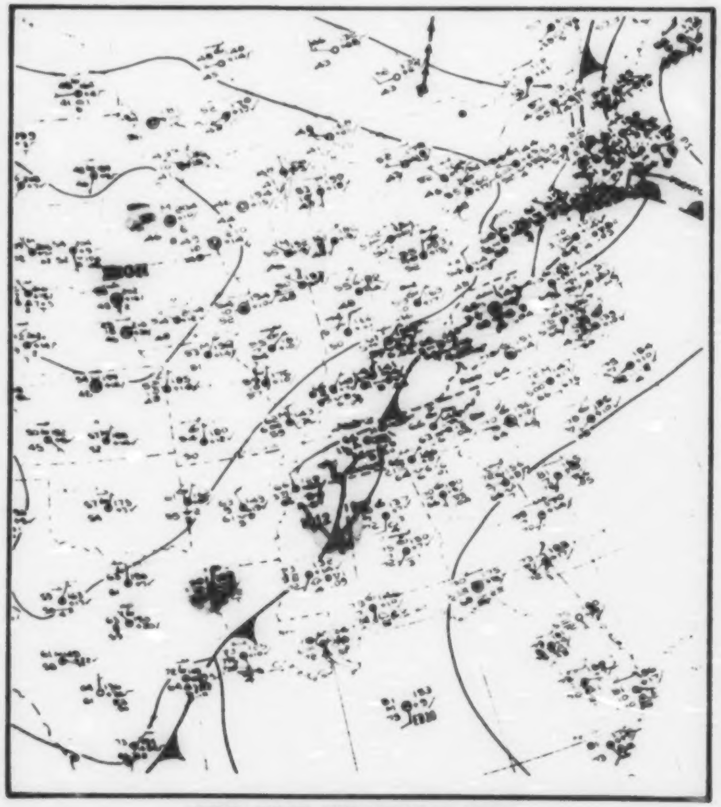
55
50
45
40
60
80
100
140
120
100
58
80
80
60
32
18
20
20
40
38
65
47

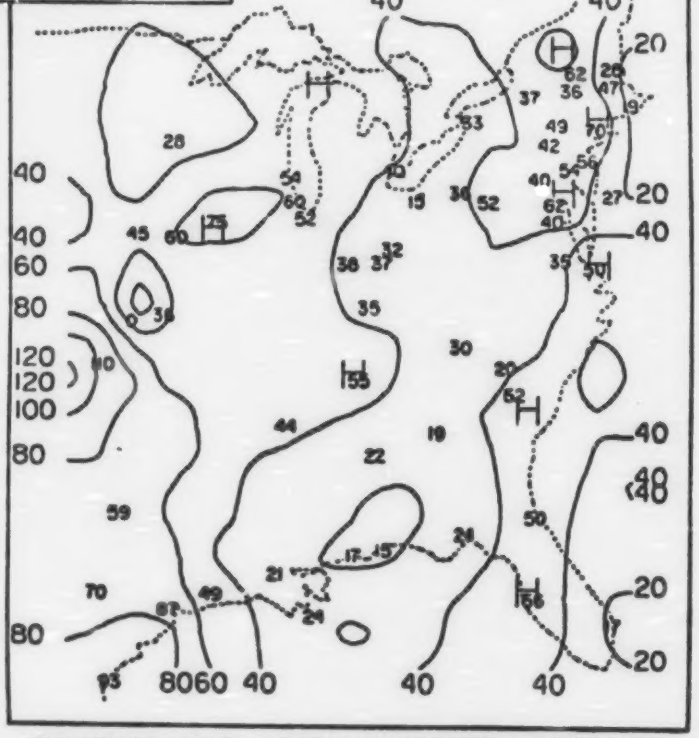
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, MAY 31, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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8060
40
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40
20
20
40
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40
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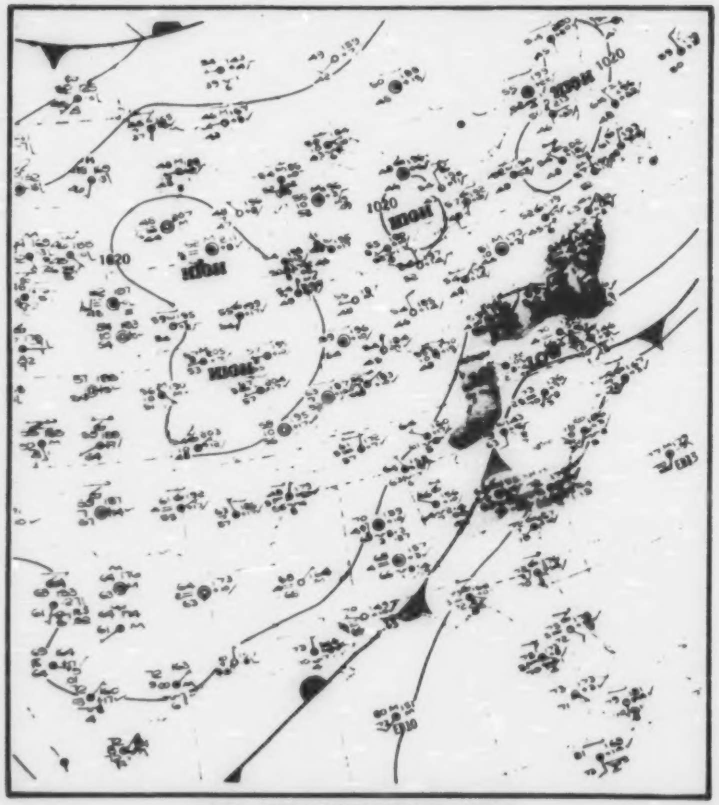
28
45
60
75
59
70
93
87
49
44
55
35
22
19
30
17
15
21
24
50
56
62
37
36
43
42
52
15
53
38
37
32

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, JUNE 1, 1974


HIGH
HIGH
HIGH
HIGH
1020
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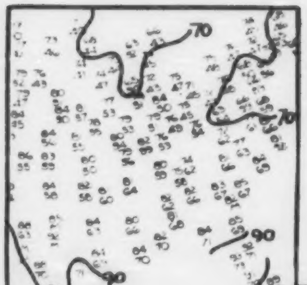
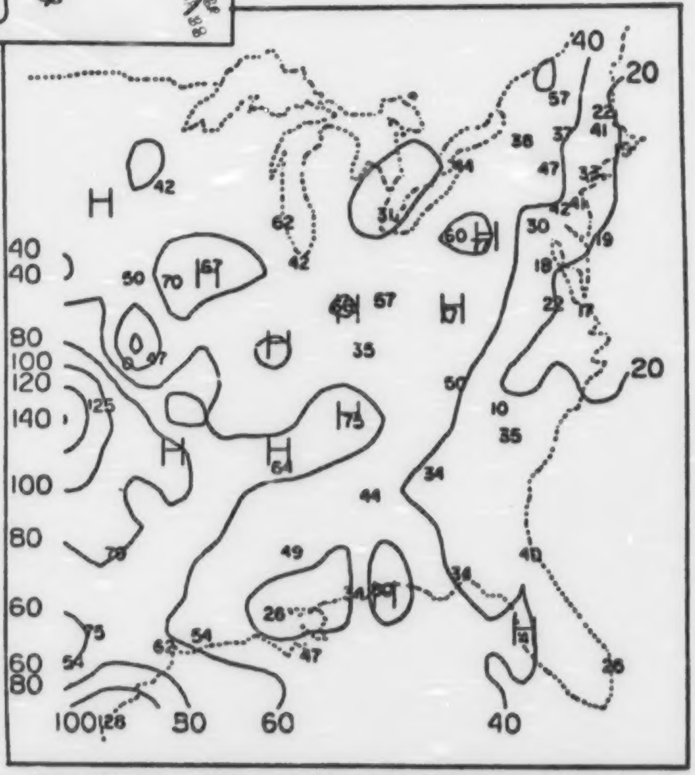
1020

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE


40
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20
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40
80
100
120
140
100
80
60
60
80
100
30
60
40
H
H
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H
H
H
57
22
41
38
37
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32
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42
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17
0
97
125
50
10
35
73
64
34
44
49
34
30
40
28
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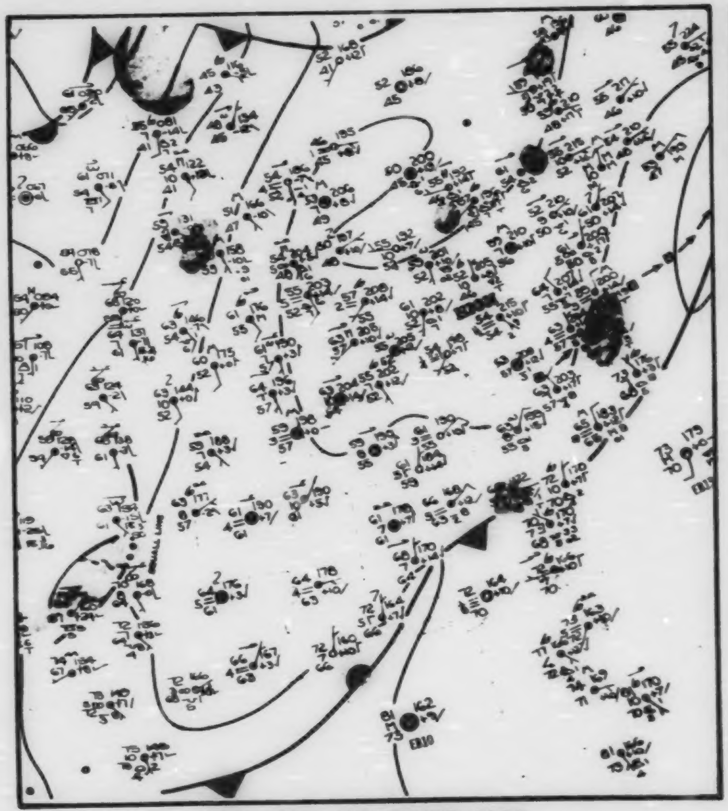
75
54
62
54
47
26
70
128

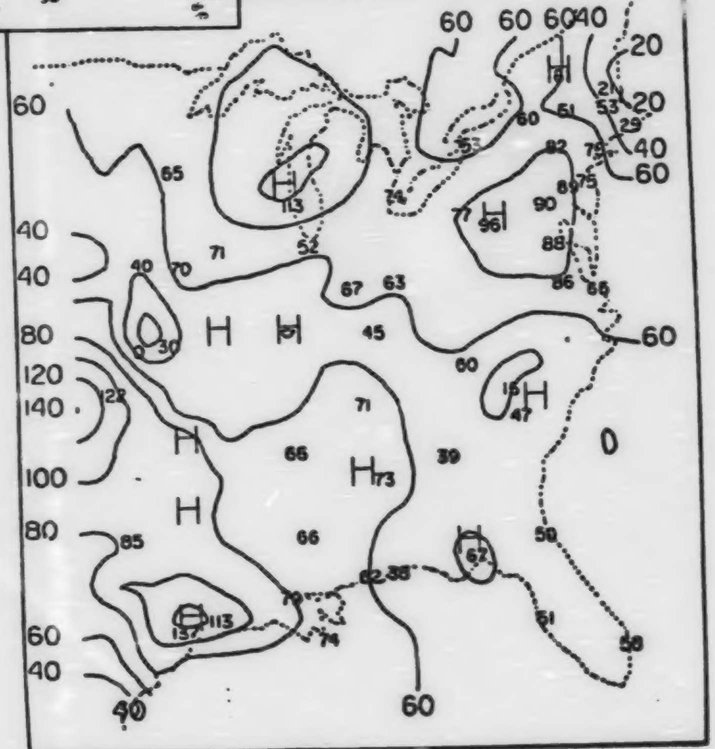
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, JUNE 2, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE


60
60
6040
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60
60
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40
80
120
140
100
80
60
40
40
60
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H
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H
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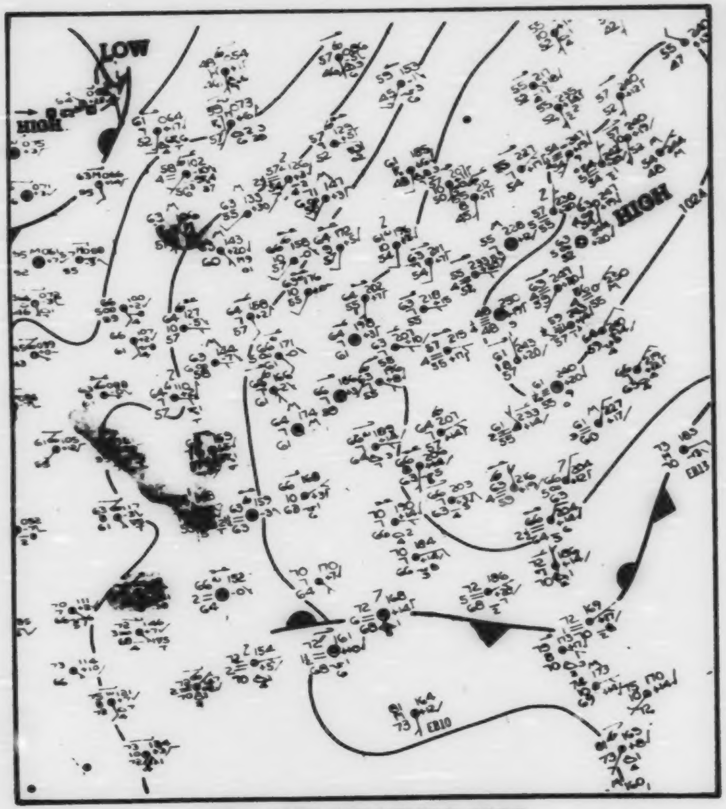
0

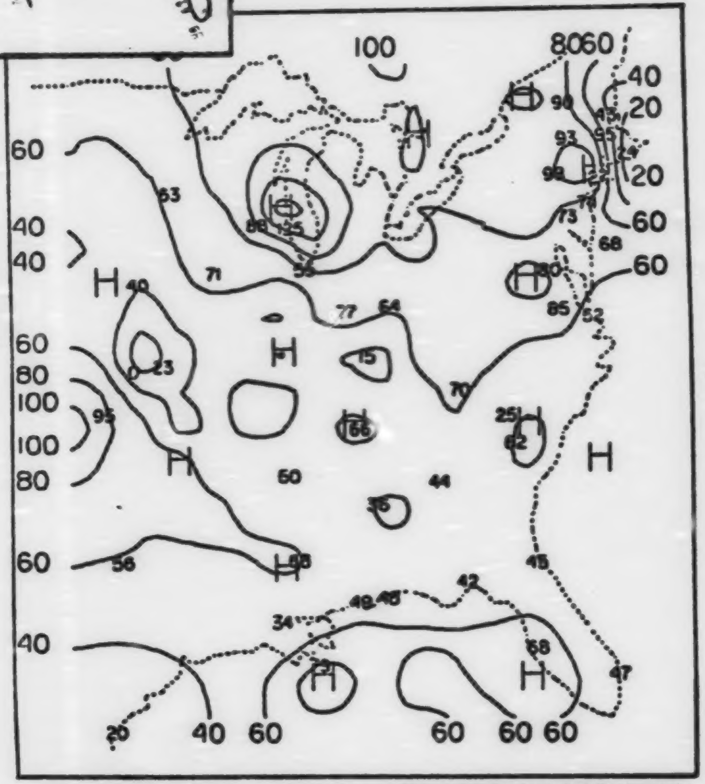
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, JUNE 3, 1974


LOW
HIGH
HIGH
1024

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE


100
8060
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20
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60
60
40
40
H
60
80
100
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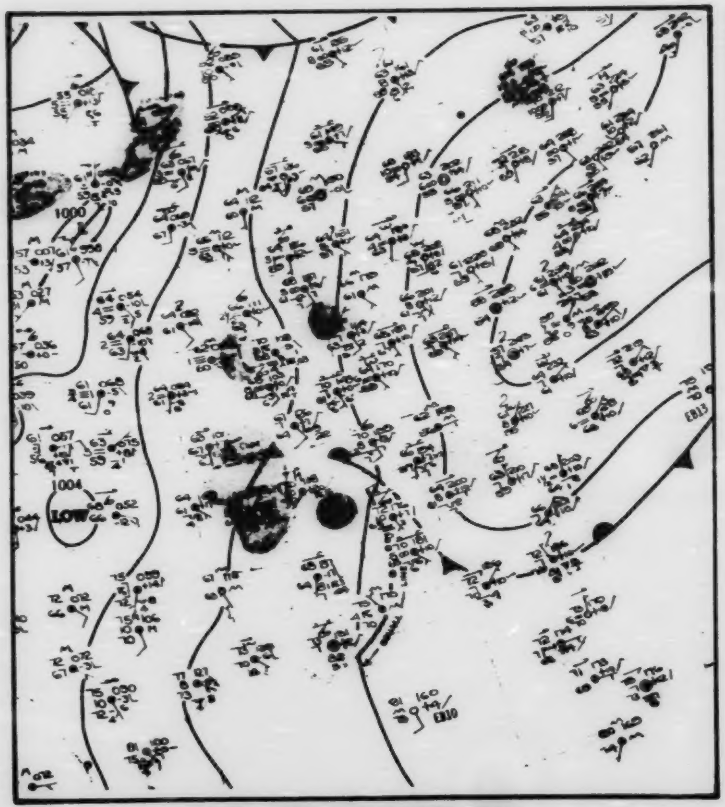
40
60
60
60
60

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

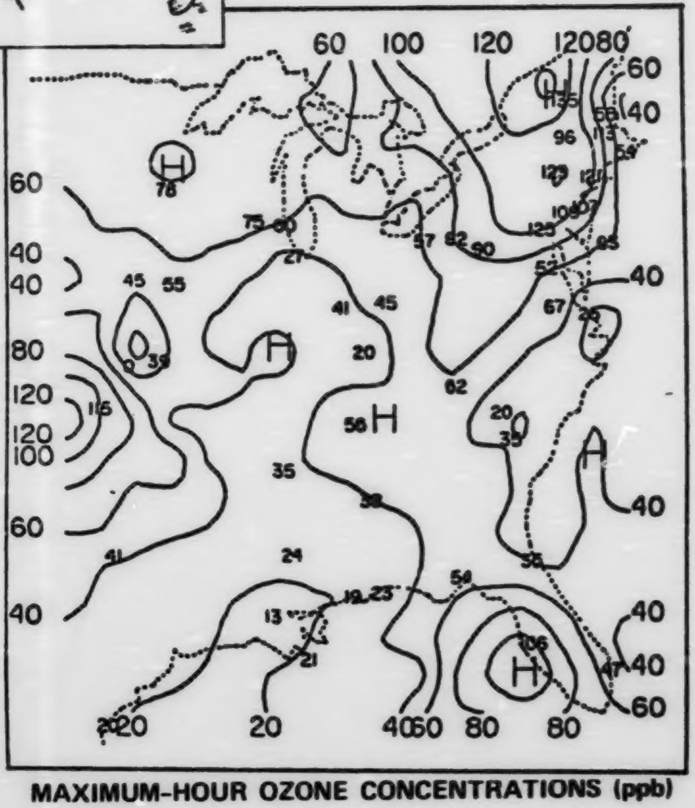
TUESDAY, JUNE 4, 1974



1200 GMT WEATHER MAP

1000
1004
LOW

MAXIMUM-
MINIMUM
TEMPERATURE



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120
80
60
40
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78
60
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40
80
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120
100
60
40
45
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115
75
60
27
41
45
20
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56
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35
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24
13
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82
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62
20
39
H
125
104
129
96
115
56
40
52
67
26
40
40
54
106
H
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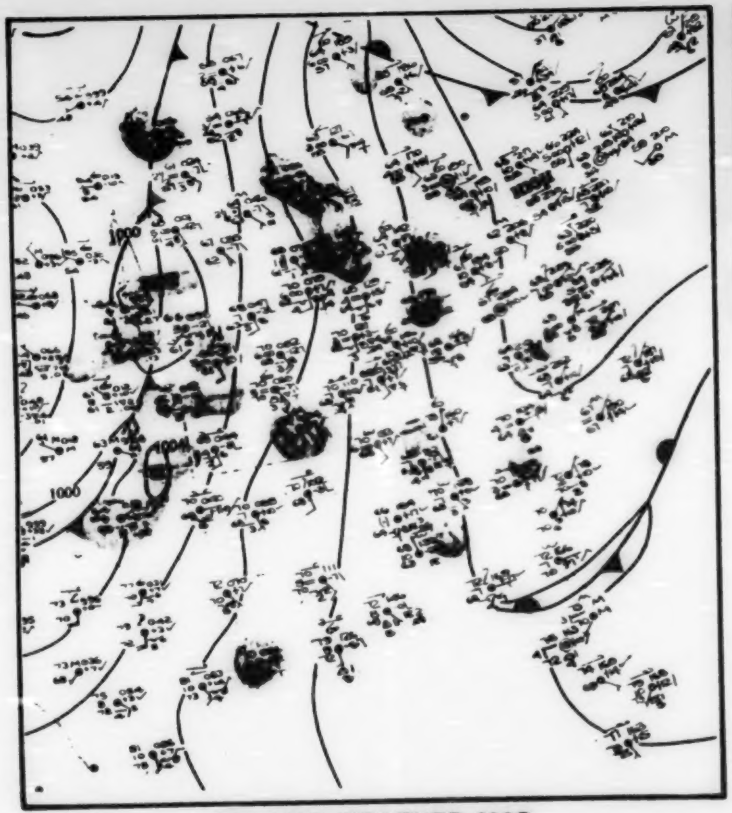
4060
80
80

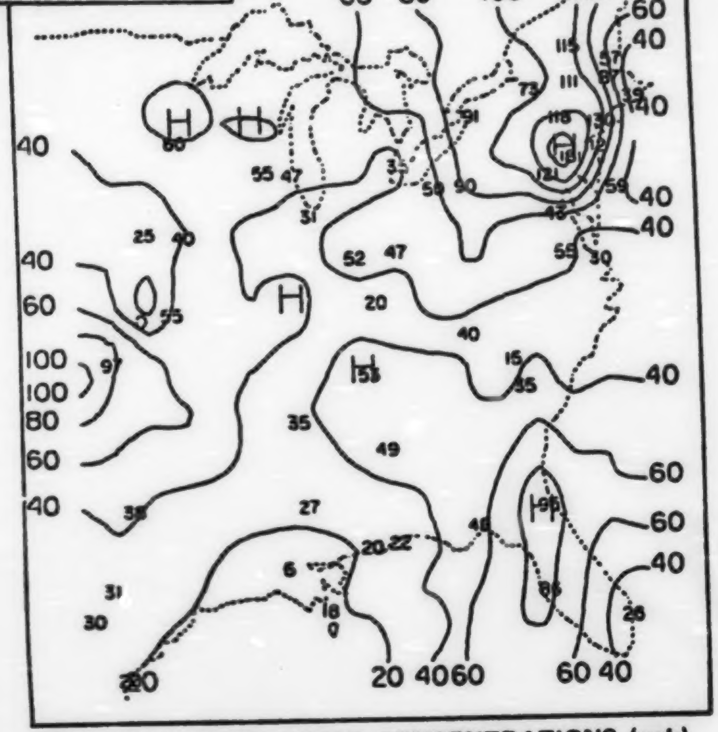
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, JUNE 5, 1974


1000
1004
1000

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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40
60
100
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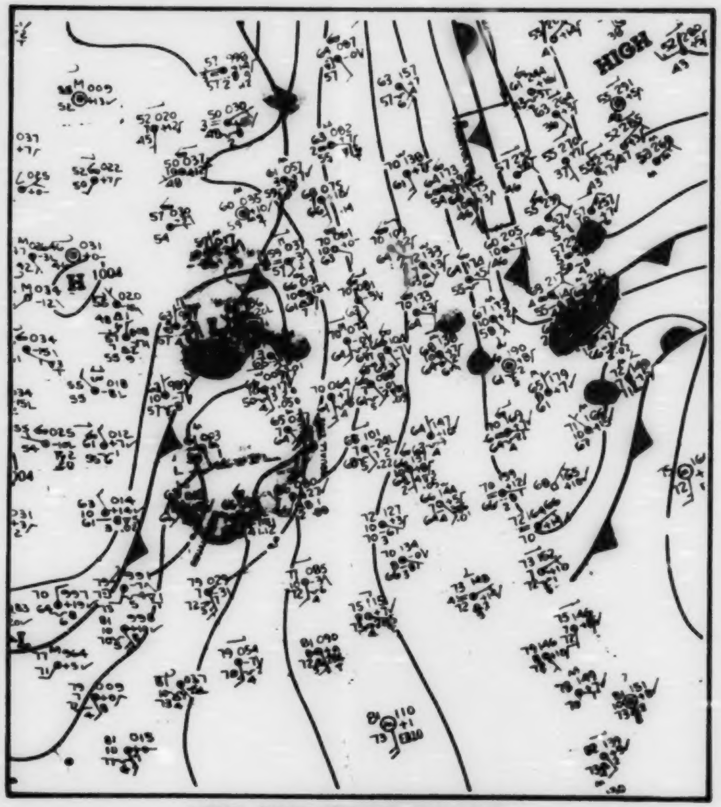
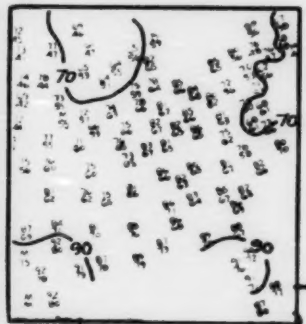
H
H
H
H
H

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

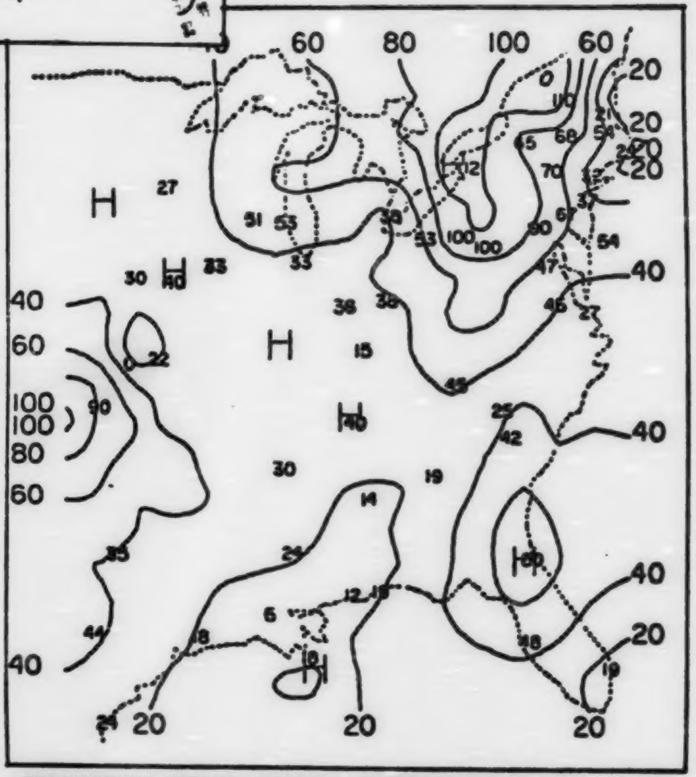
THURSDAY, JUNE 6, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE


60
80
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40
20
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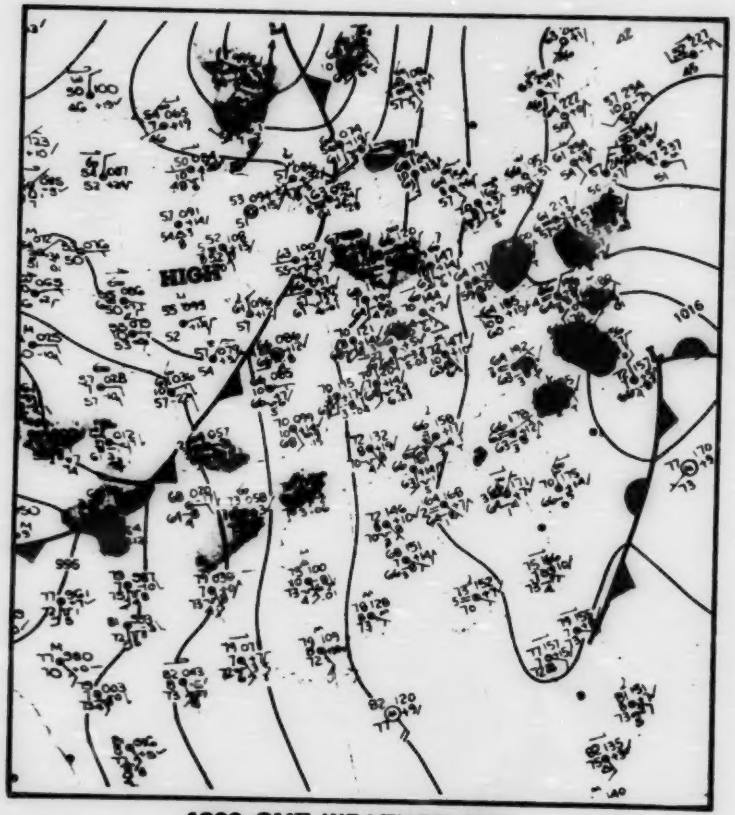
80
60
40
H
H
H
H

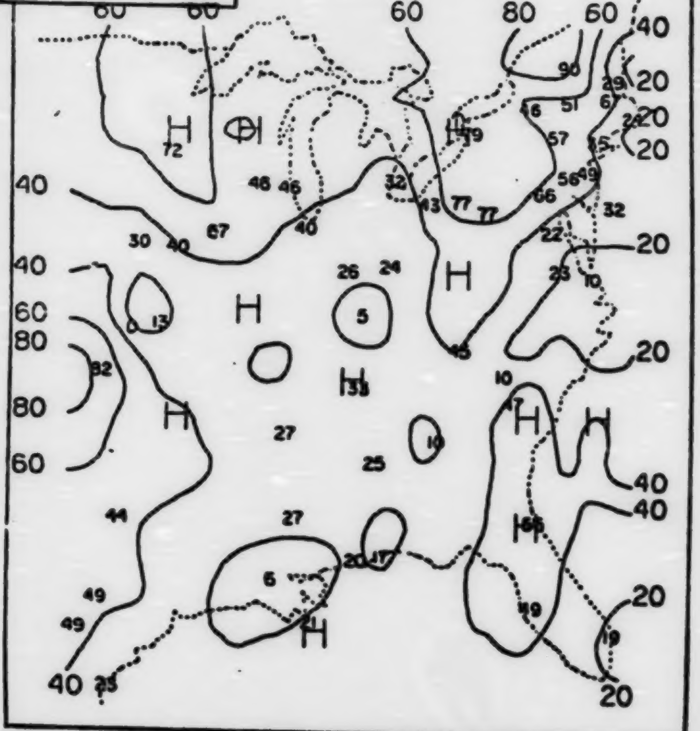
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, JUNE 7, 1974


HIGH
1016
996

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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60
40
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20
40
40
20
20
40
60
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80
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40
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H
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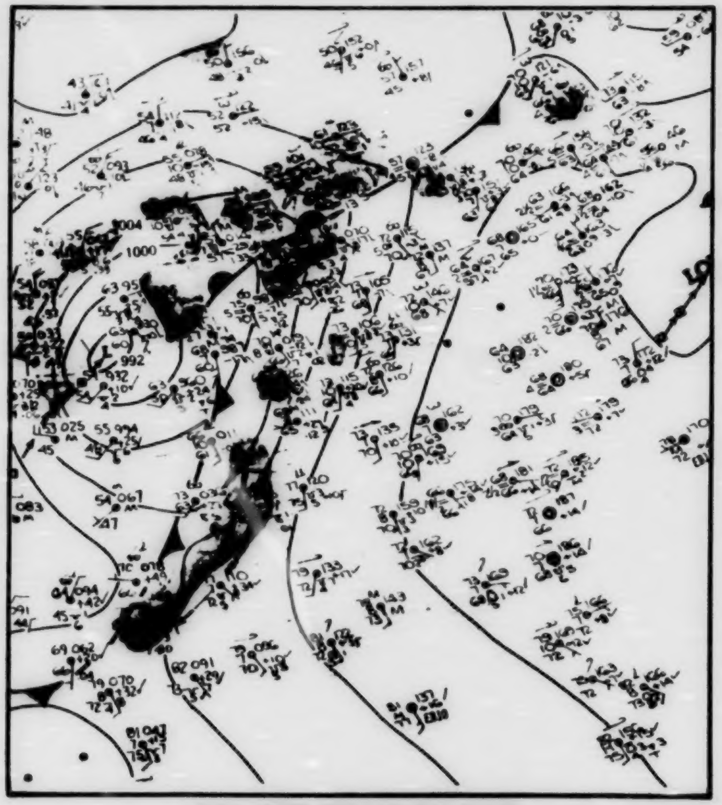
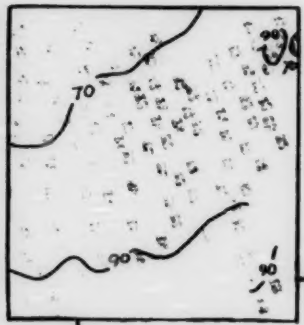
H

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

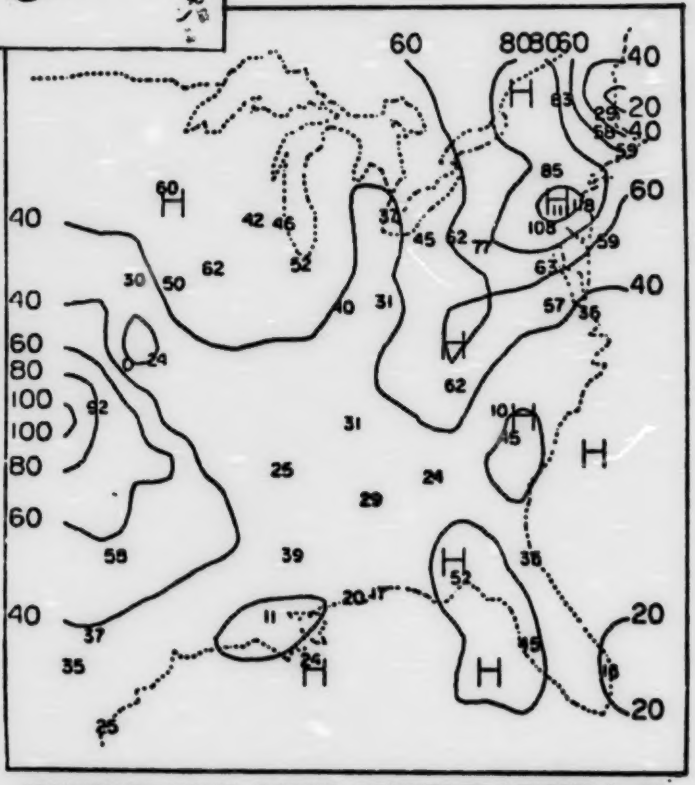
SATURDAY, JUNE 8, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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60
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20
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H
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60
42
46
52
62
30
50
32
45
62
77
85
108
118
63
59
57
36
40
31
24
92
31
25
24
29
62
101
45
58
39
37
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11
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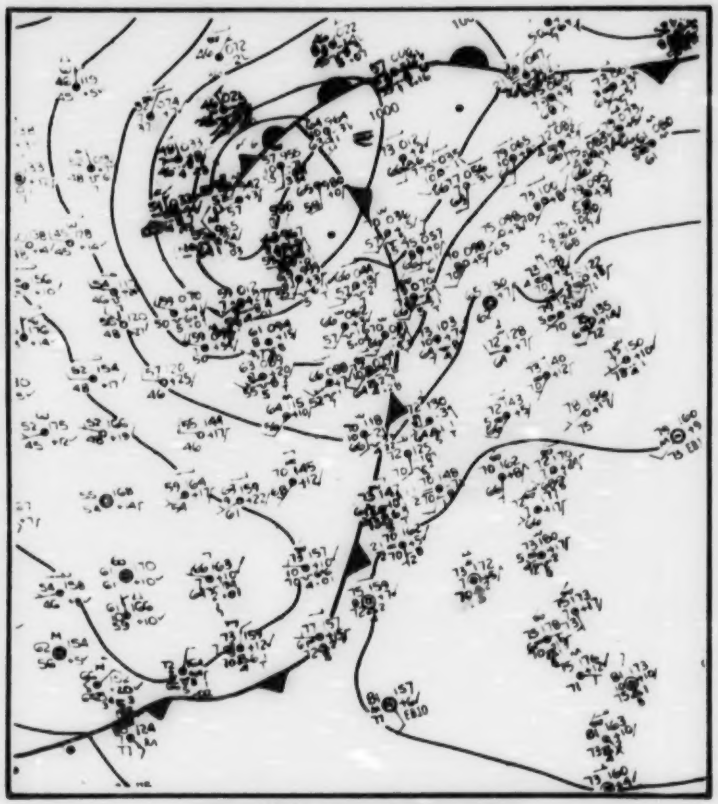
20
52
38
45
18
25

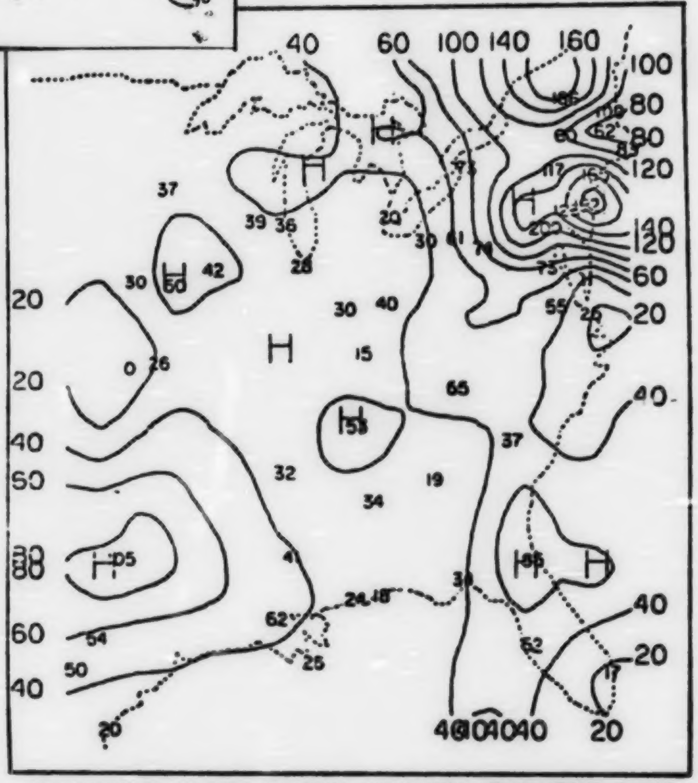
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, JUNE 9, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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42
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40
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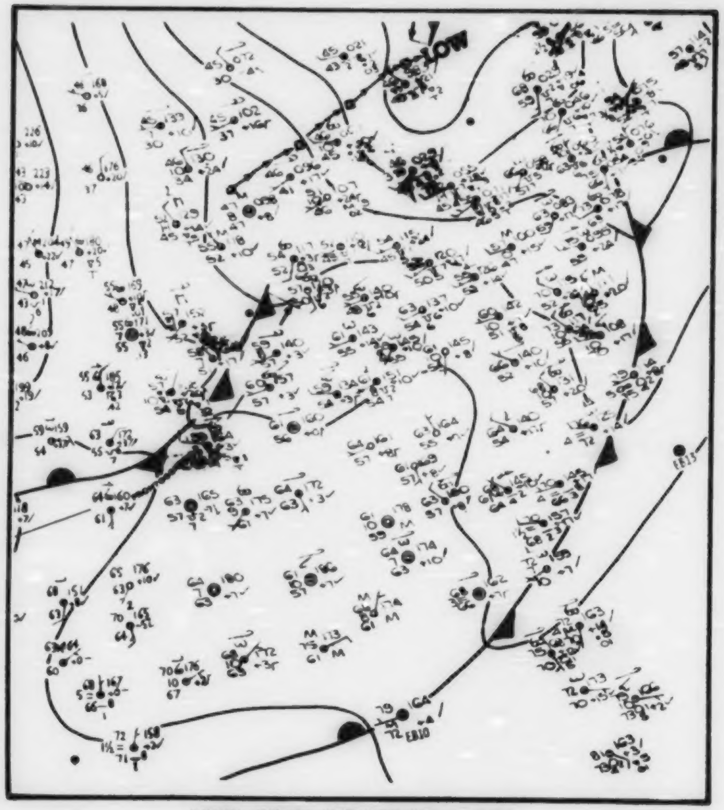
65
37
32
34
19
55
61
74
75
24 48
62
25
54
50
26
0

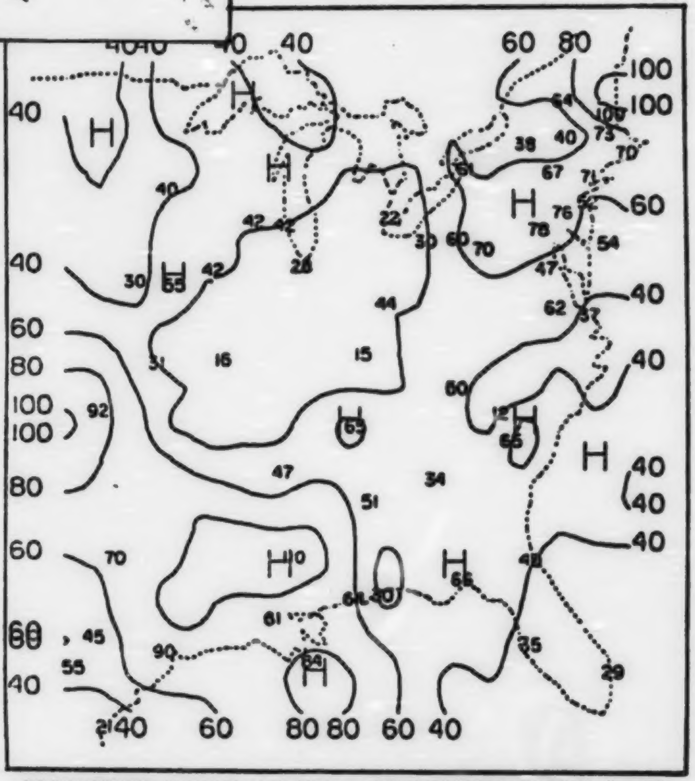
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, JUNE 10, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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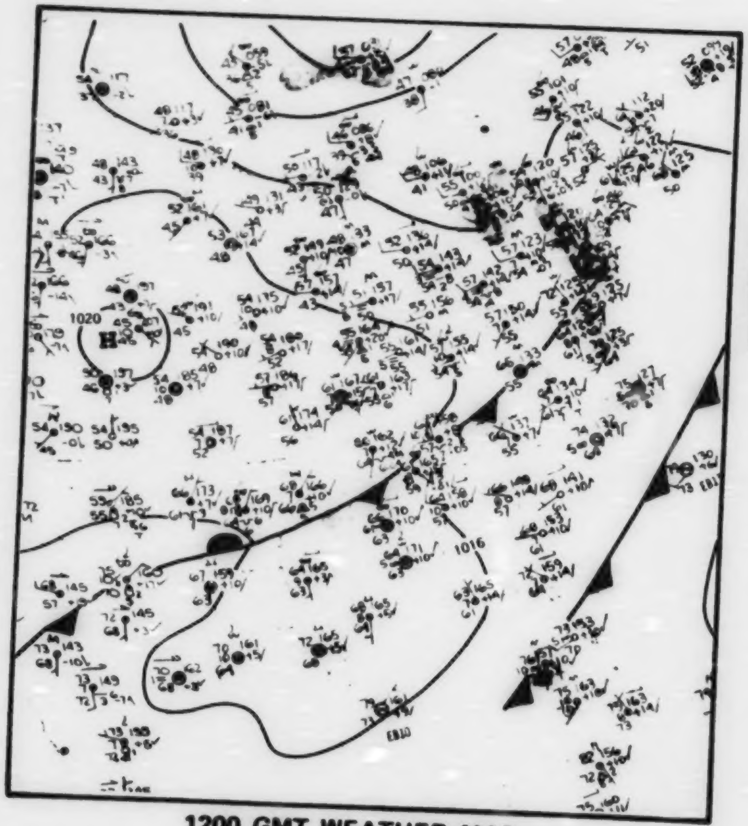
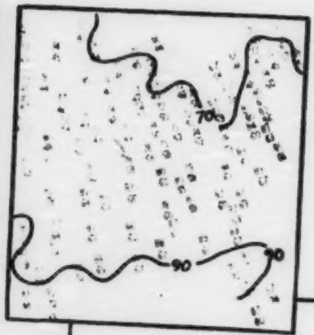
H

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

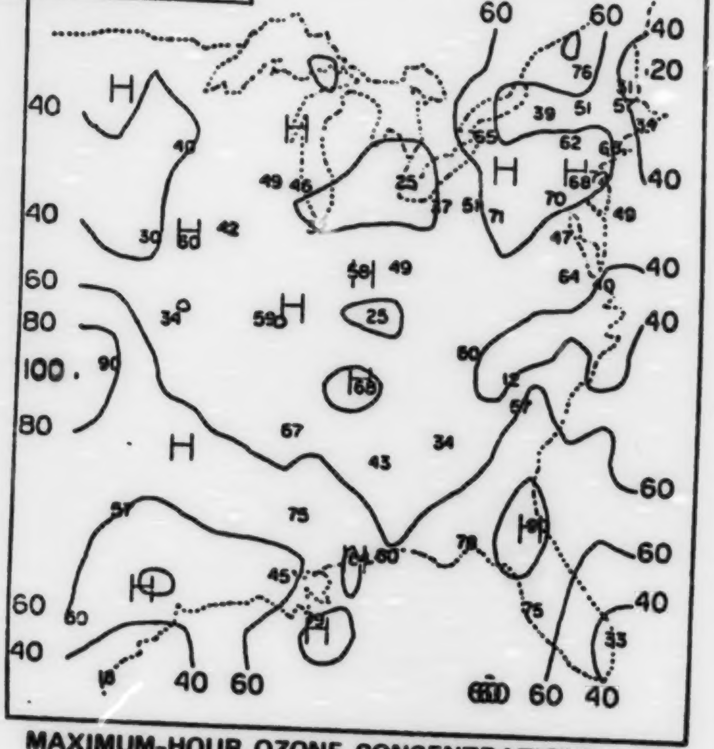
TUESDAY, JUNE 11, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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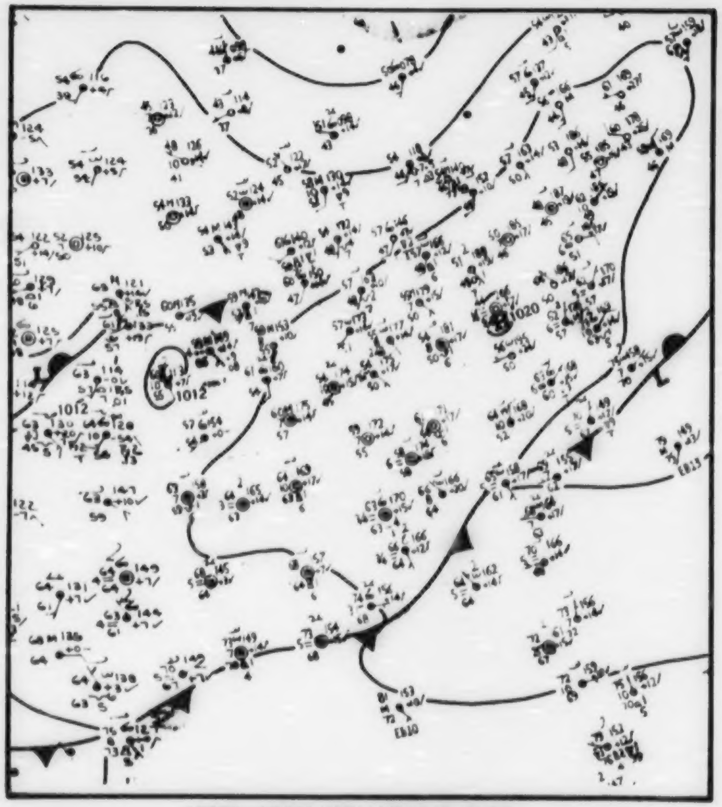
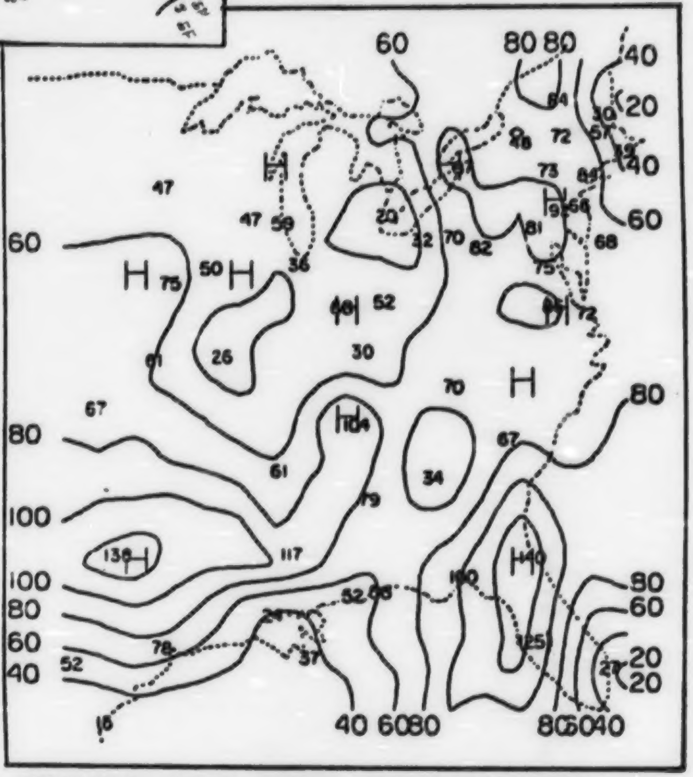
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, JUNE 12, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE



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80
60
20
20
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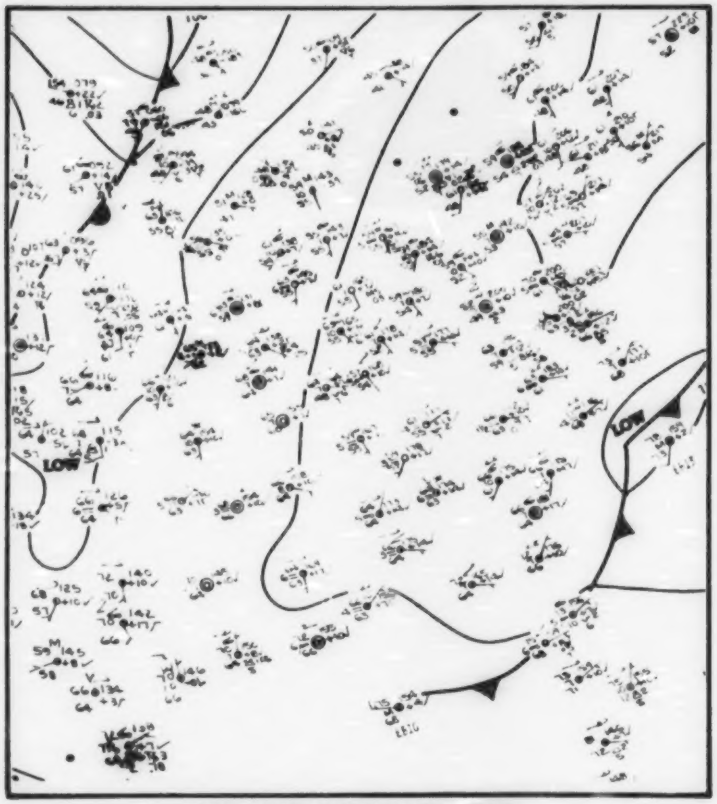
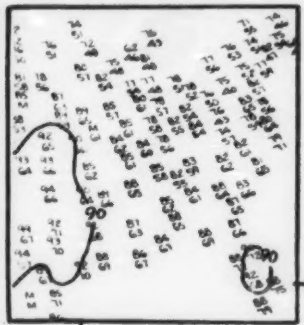
47
47
59
50
75
36
20
22
70
82
81
73
72
84
30
57
66
68
75
72
52
30
26
61
67
61
104
70
67
34
79
117
138
52
78
24
37
52
100
140
125
27
16

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

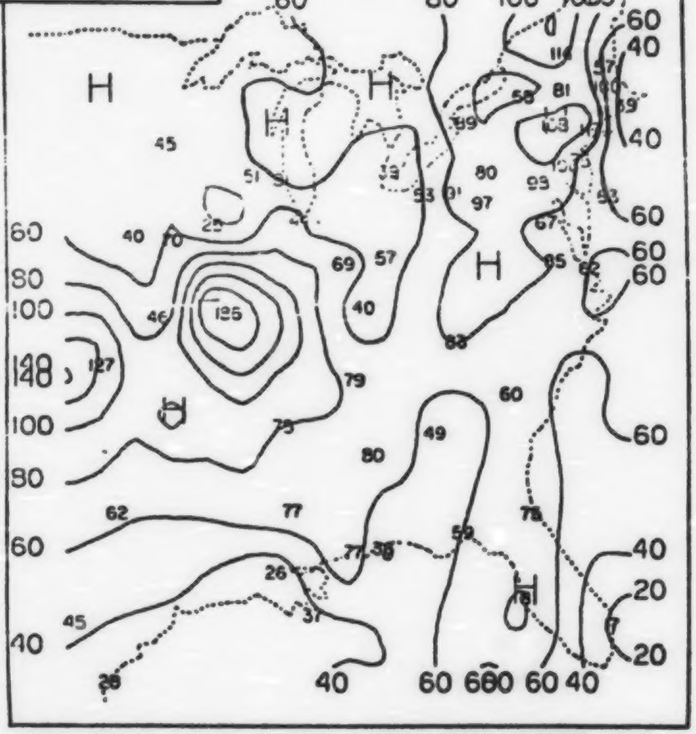
THURSDAY, JUNE 13, 1974



1200 GMT WEATHER MAP



MAXIMUM-MINIMUM TEMPERATURE



H
H
H
H
H
H
60
80
100
40
60
80
100
140
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60
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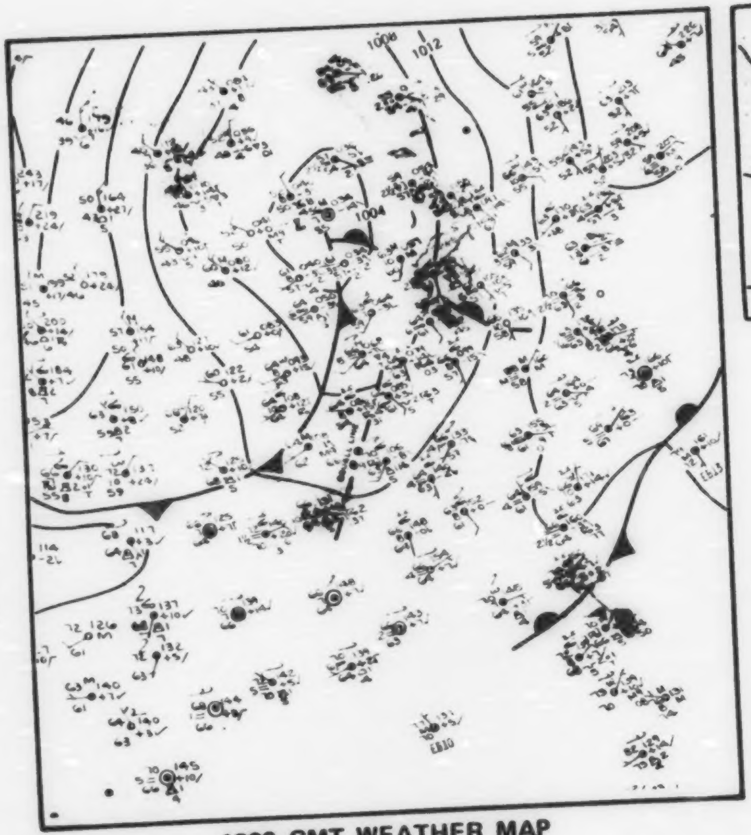
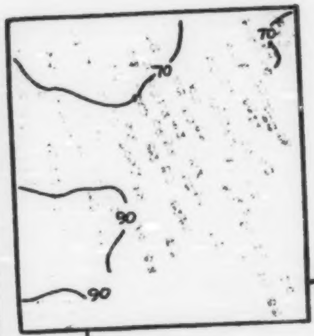
125
127
60
40
20
20

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

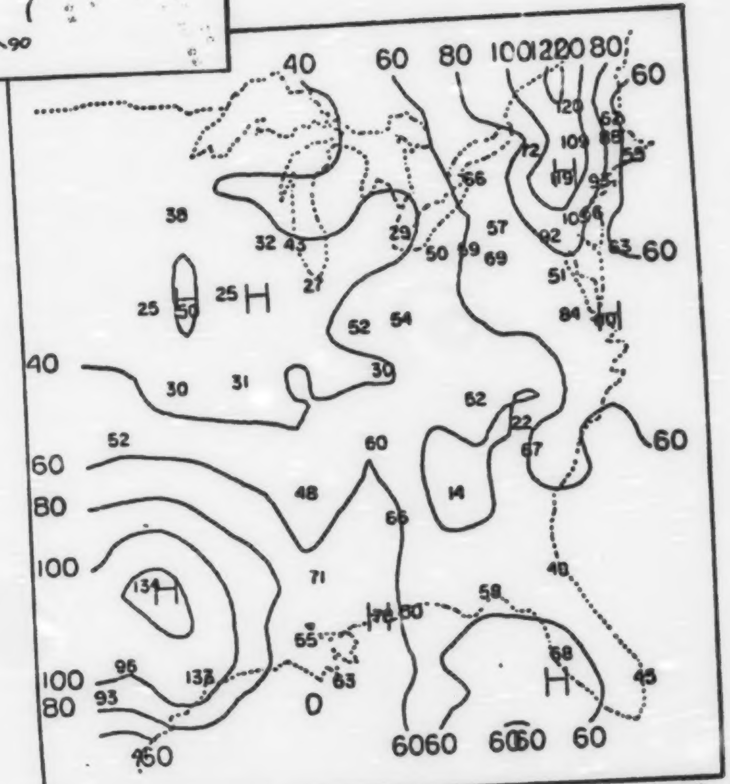
FRIDAY, JUNE 14, 1974


1008
1012
1004

**1200 GMT WEATHER MAP**



**MAXIMUM-MINIMUM TEMPERATURE**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6060
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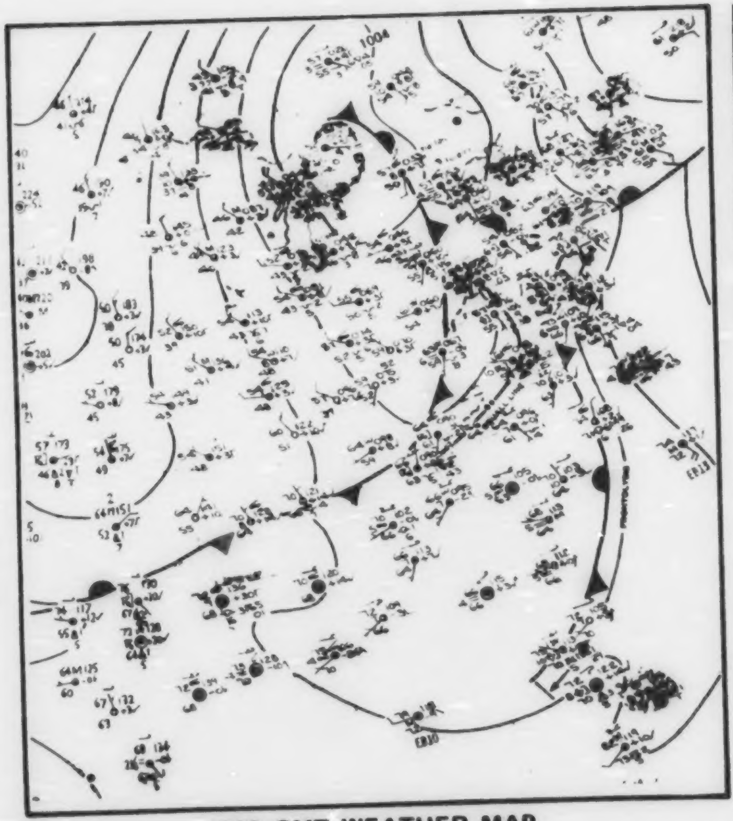
27
25
50
25
H
52
54
30
31
30
62
22
67
52
60
48
14
66
71
40
58
78
30
55
63
68
H
45
134
H
96
93
132
0

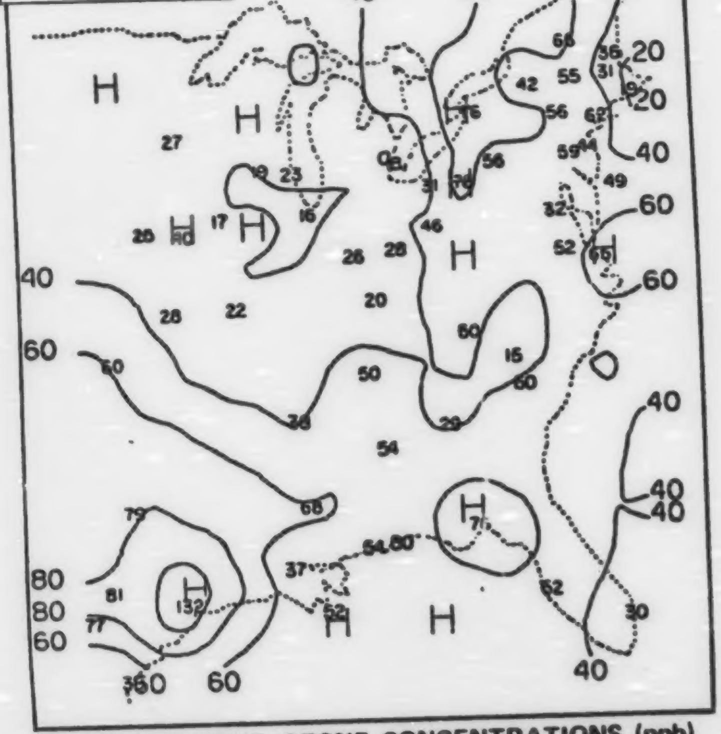
**MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)**

SATURDAY, JUNE 15, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE


40
60
60 40
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80
80
60
360
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H
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27
25
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16
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46
56
42
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62
59
49
32
52
60
15
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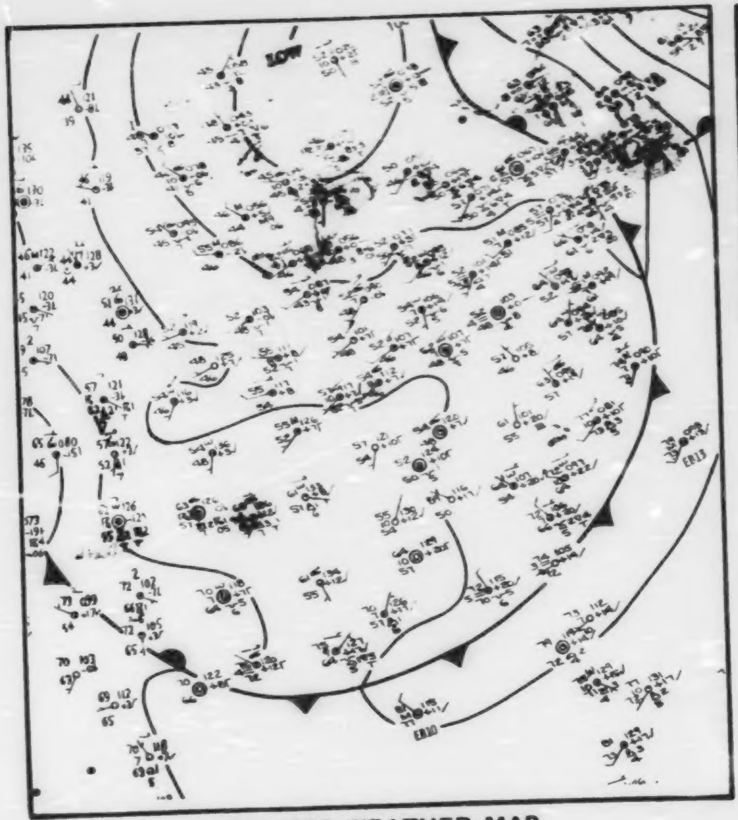
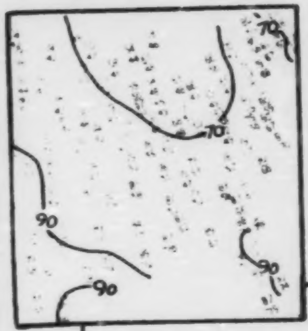
38
54
29
68
79
81
132
77
37
54,60
52
71
62
30

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, JUNE 16, 1974



1200 GMT WEATHER MAP


70
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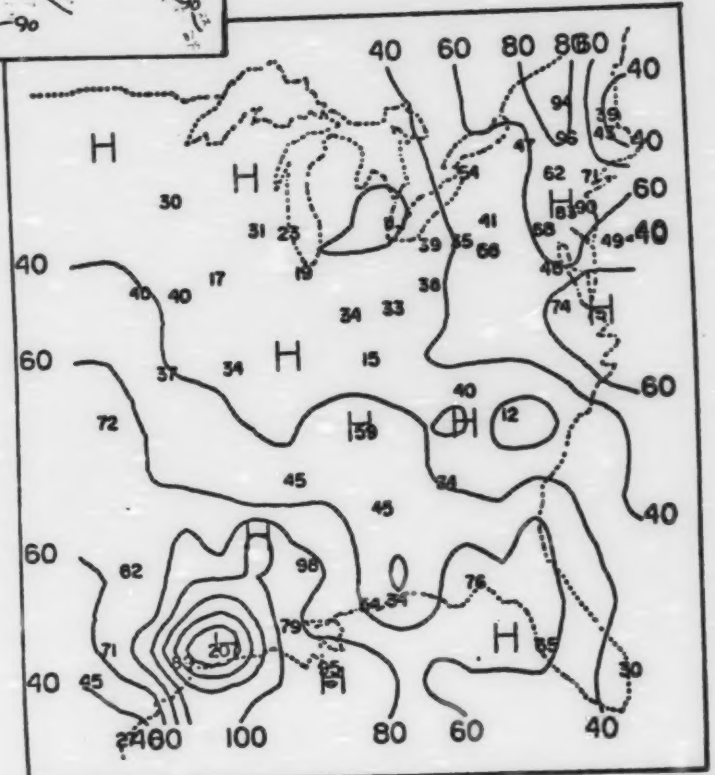
90
90

MAXIMUM-
MINIMUM
TEMPERATURE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60
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80
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60
40
40
60
60
40
H
H
H
H
H
H
H
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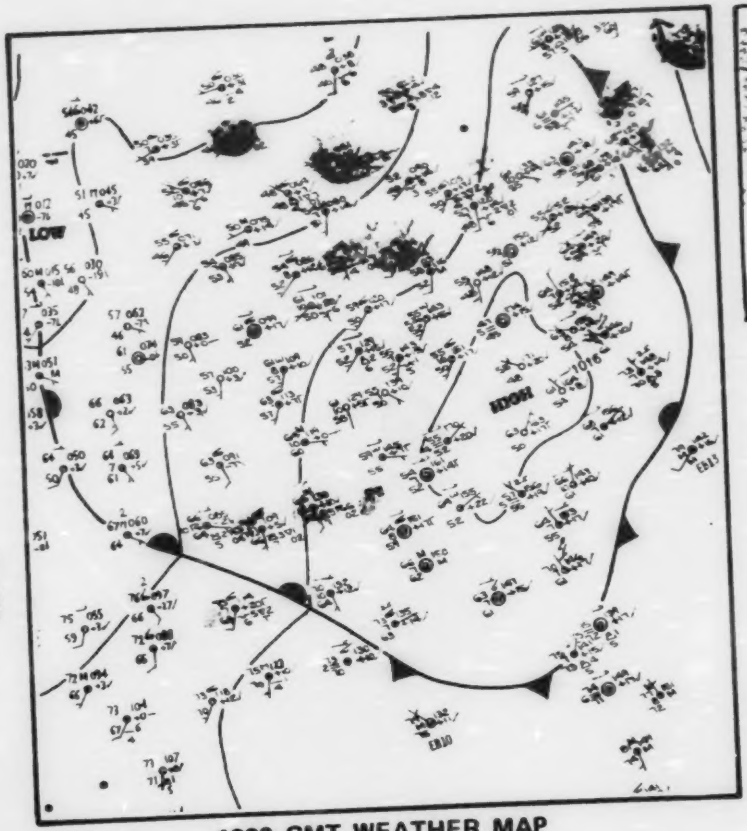
80
60
40
40
60
207

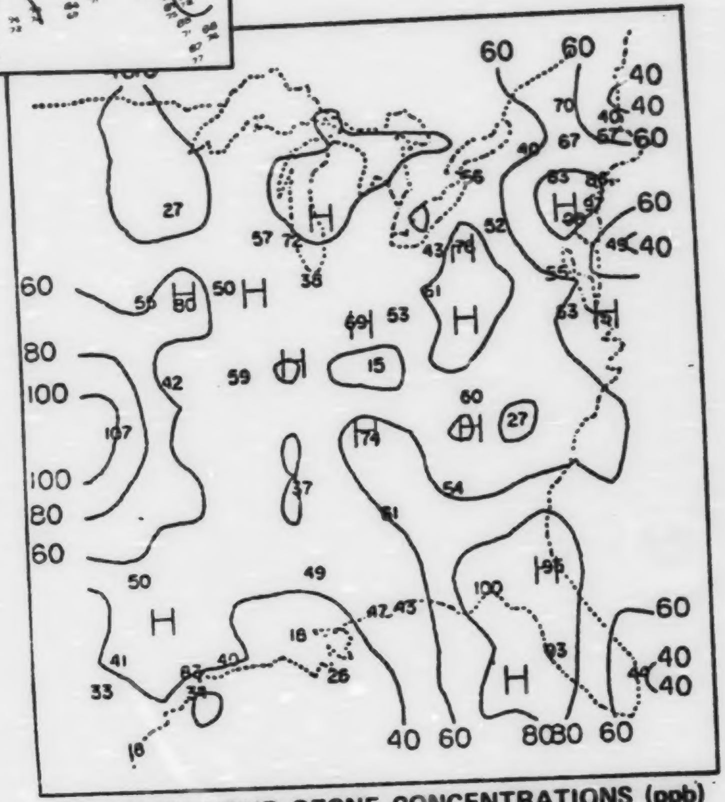
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, JUNE 17, 1974


LOW
HIGH
1016

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE


60
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27
15
27
107
60
80
100
100
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60
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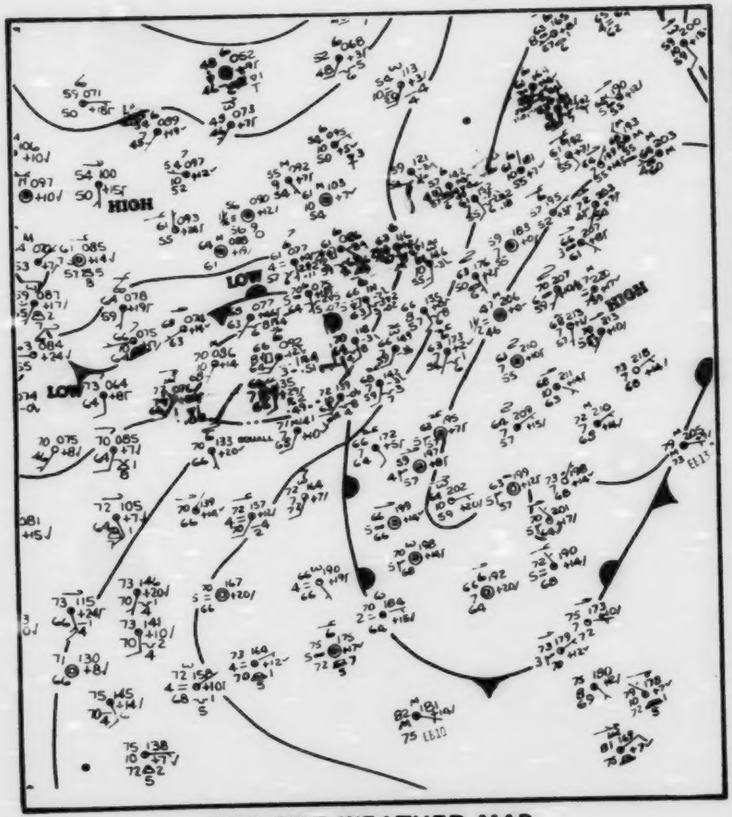
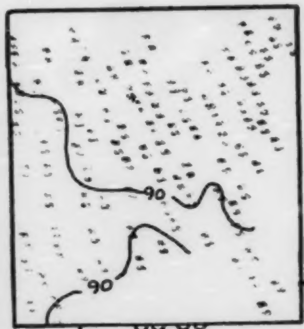
40
40

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

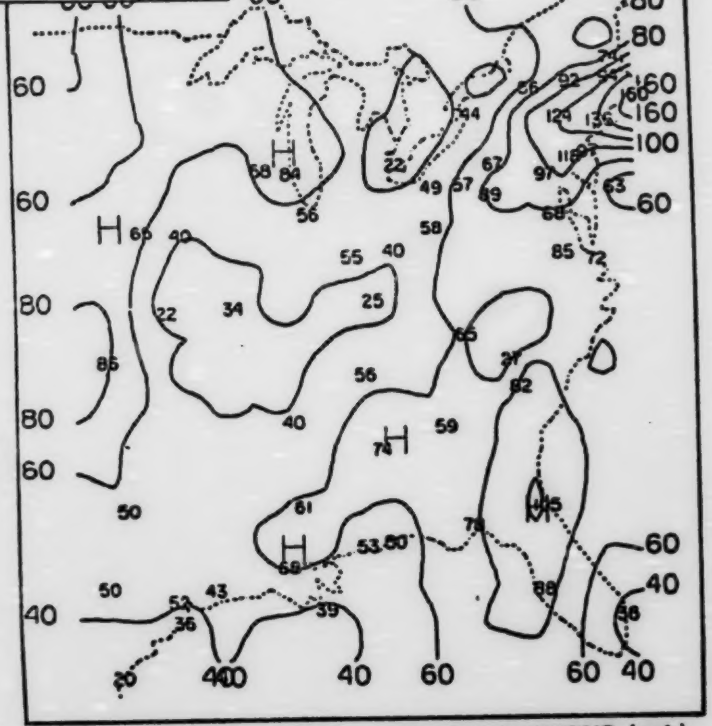
TUESDAY, JUNE 18, 1974


HIGH
LOW
LOW
HIGH

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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100
60
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60
80
80
60
40
H
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H
50
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40
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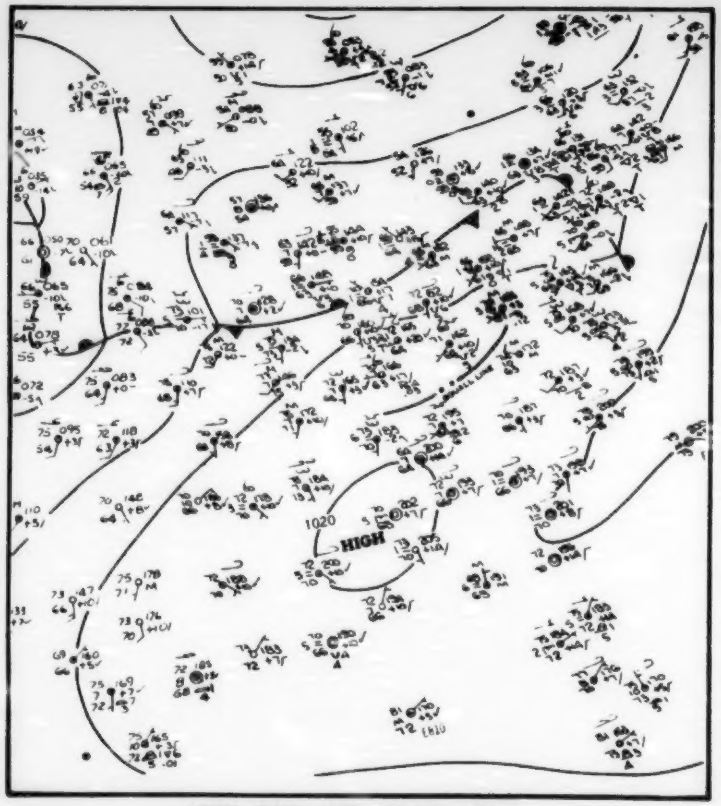
60
40
40

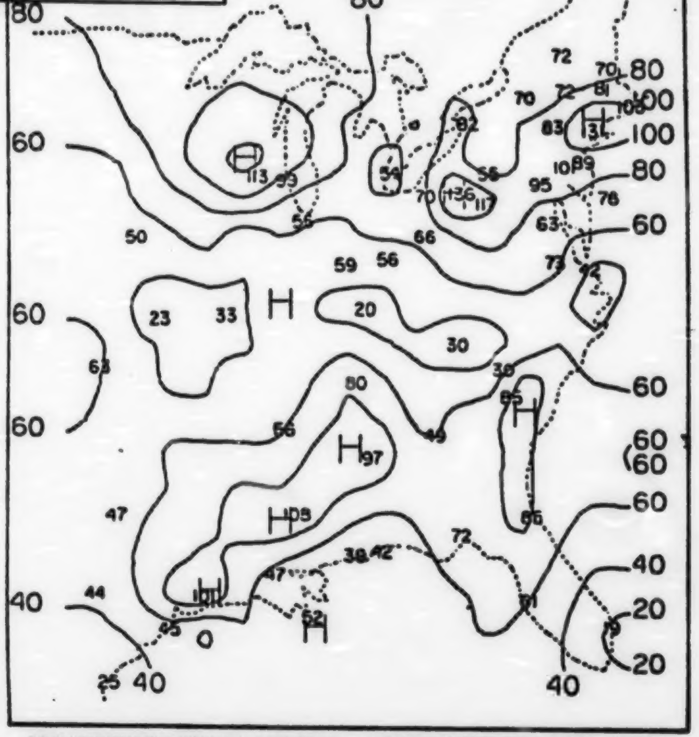
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, JUNE 19, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE


80
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100
80
60
60
60
60
60
20
20
40
40
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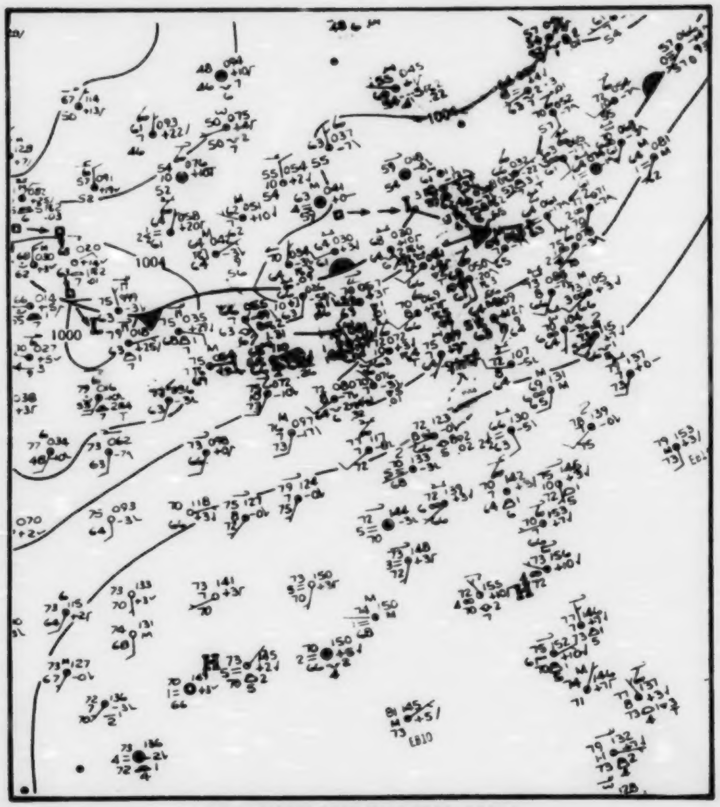
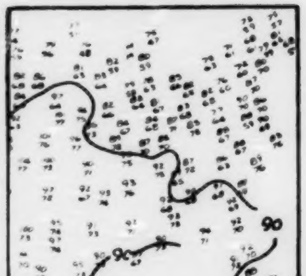
60
60
60
40
H
H
H
H
H
H
113
134
136
97
103
85
30
20
23
33
50
47
44

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

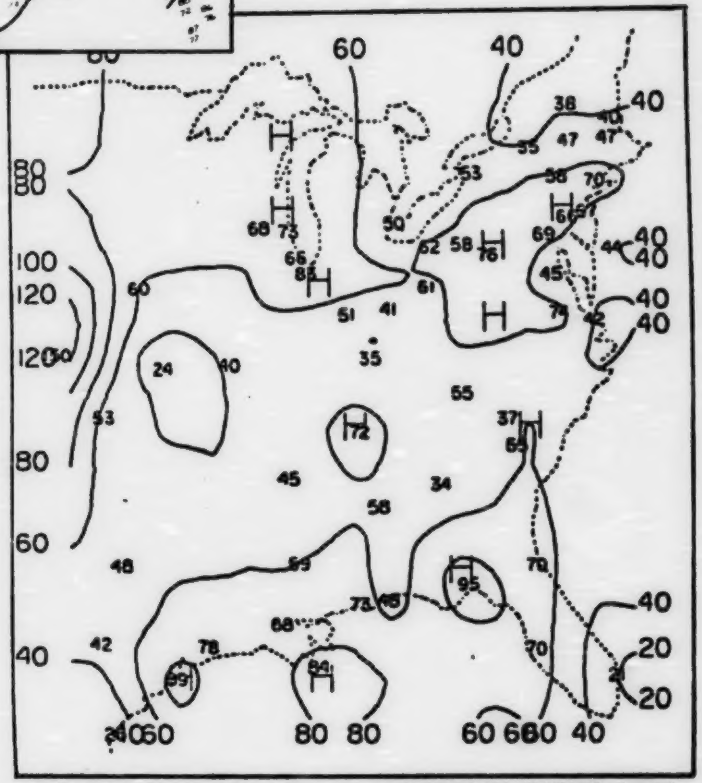
THURSDAY, JUNE 20, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE


60
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80
70
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73
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48
59
73
65
95
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70
40
20
20
68
78
84
42
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40
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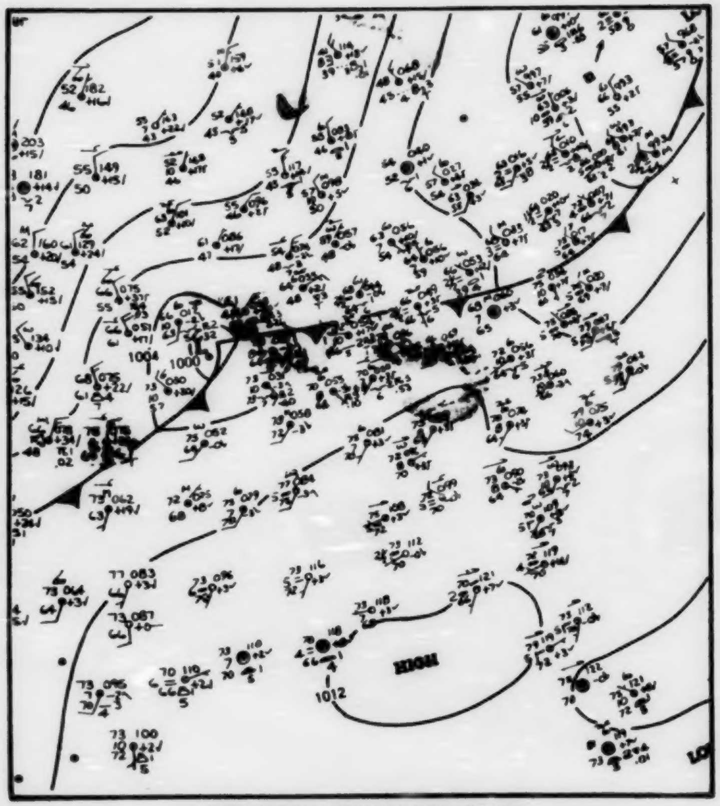
80
80
60
60
60
40

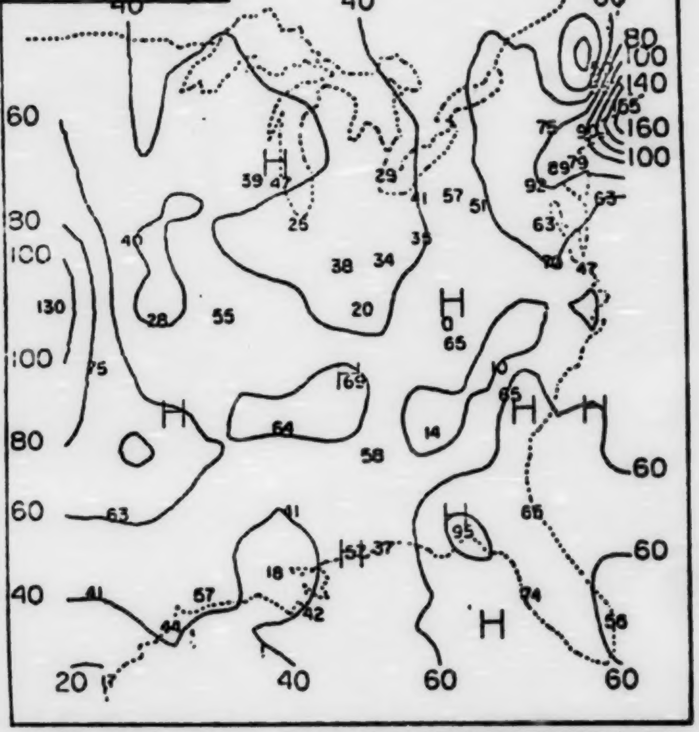
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, JUNE 21, 1974


HIGH
1012
1004
1000

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE


40
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130
100
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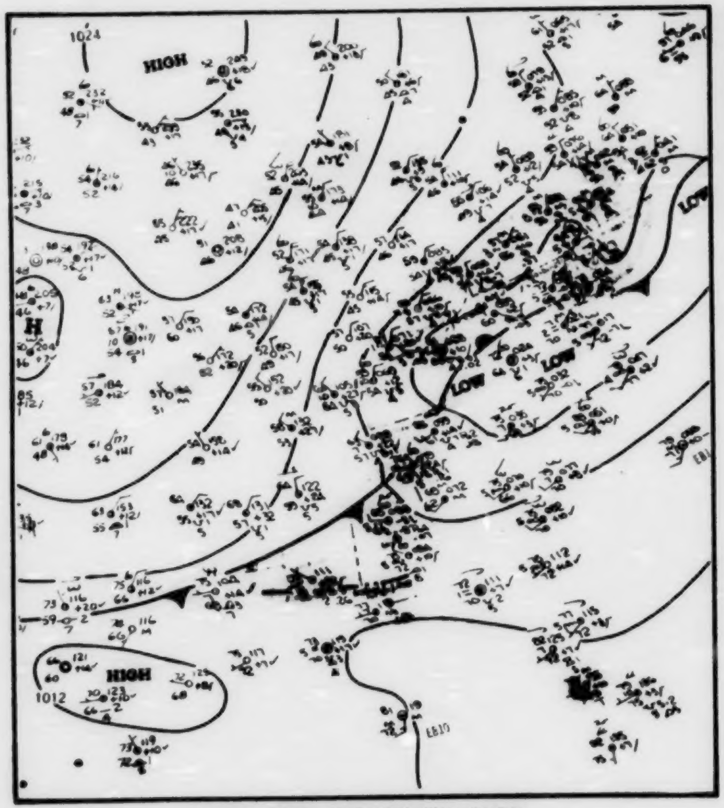
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, JUNE 22, 1974


1024
HIGH
H
LOW
LOW
LOW
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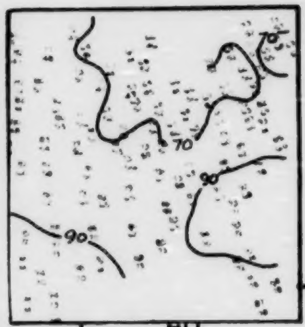
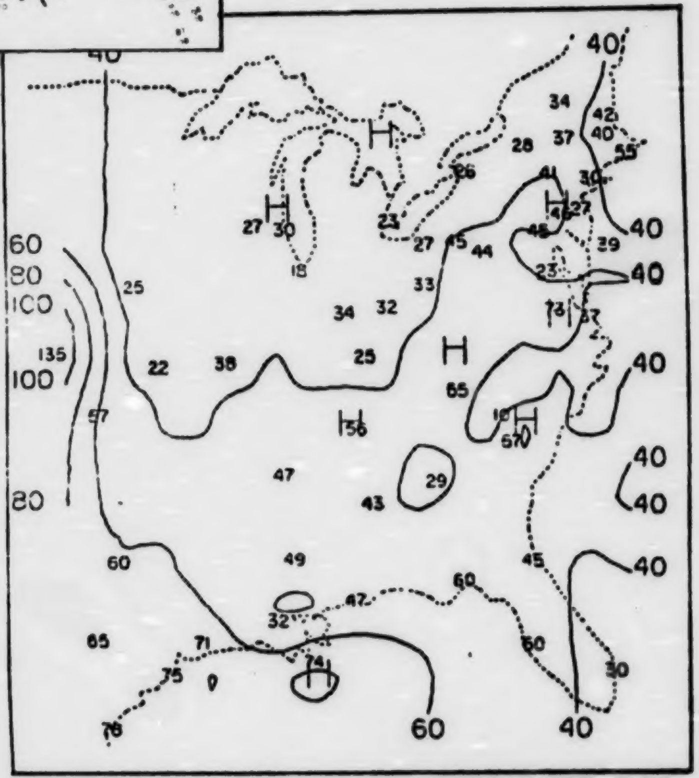
HIGH
1012

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE


40
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42
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41
26
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18
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73
37
135
100
22
38
25
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65
40
57
56
18
57
40
47
29
40
80
43
49
45
40
60
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47
32
65
71
60
75
74
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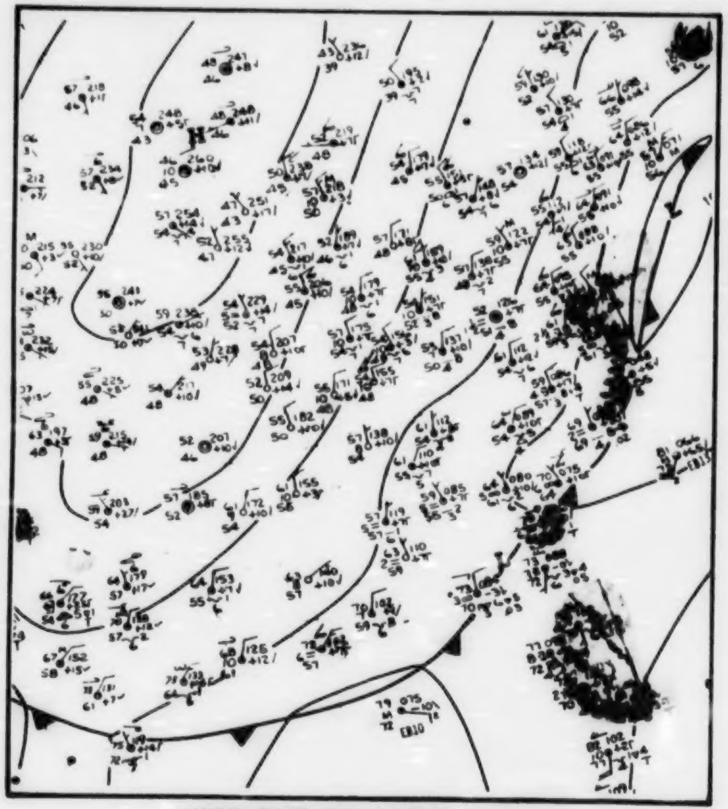
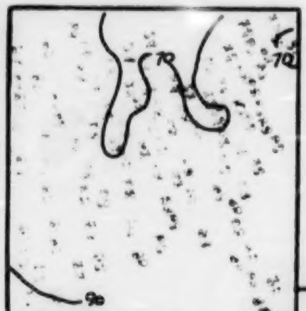
0
76
60
40

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

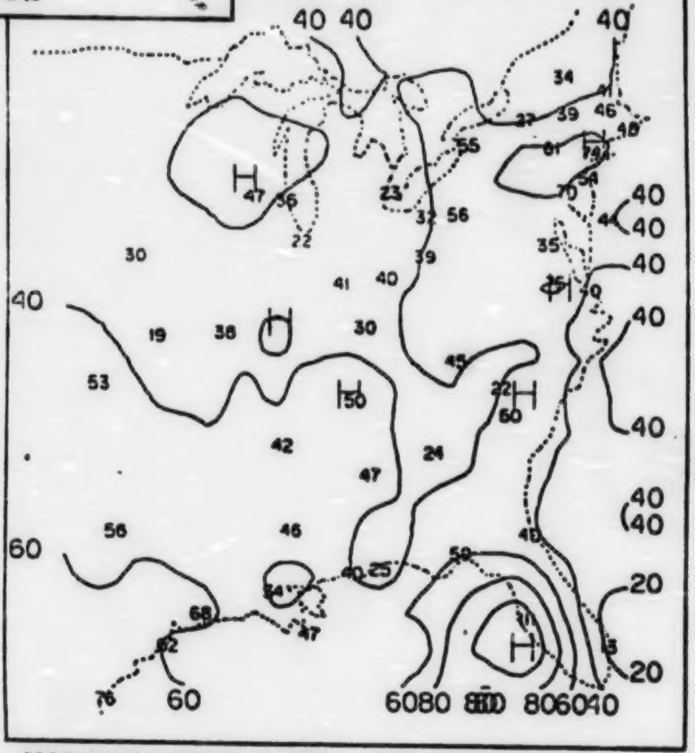
SUNDAY, JUNE 23, 1974



1200 GMT WEATHER MAP

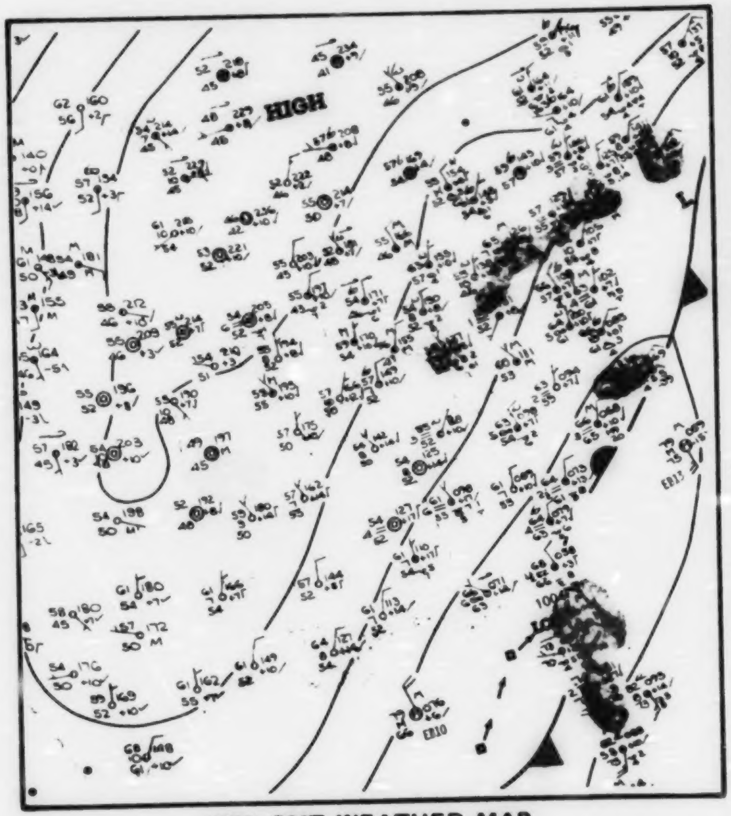


MAXIMUM-
MINIMUM
TEMPERATURE



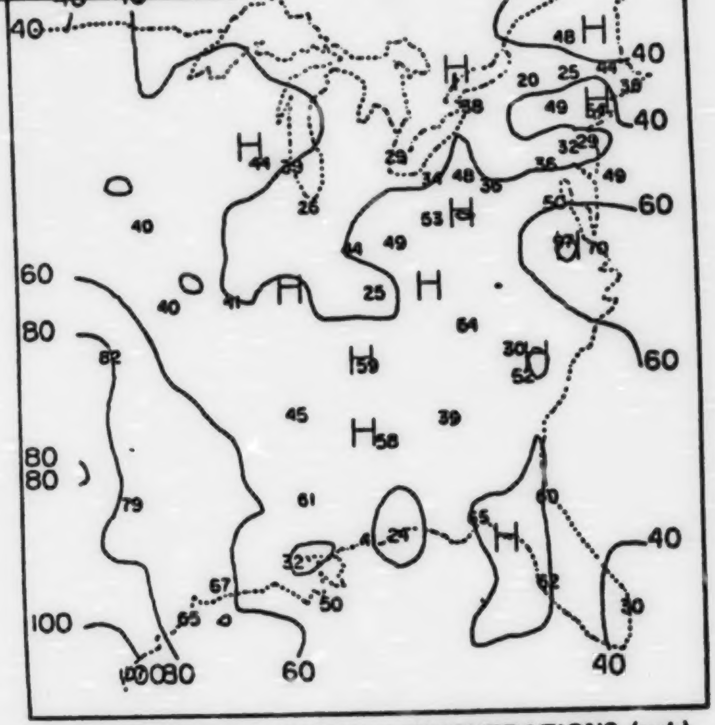
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, JUNE 24, 1974



1200 GMT WEATHER MAP

MAXIMUM-MINIMUM TEMPERATURE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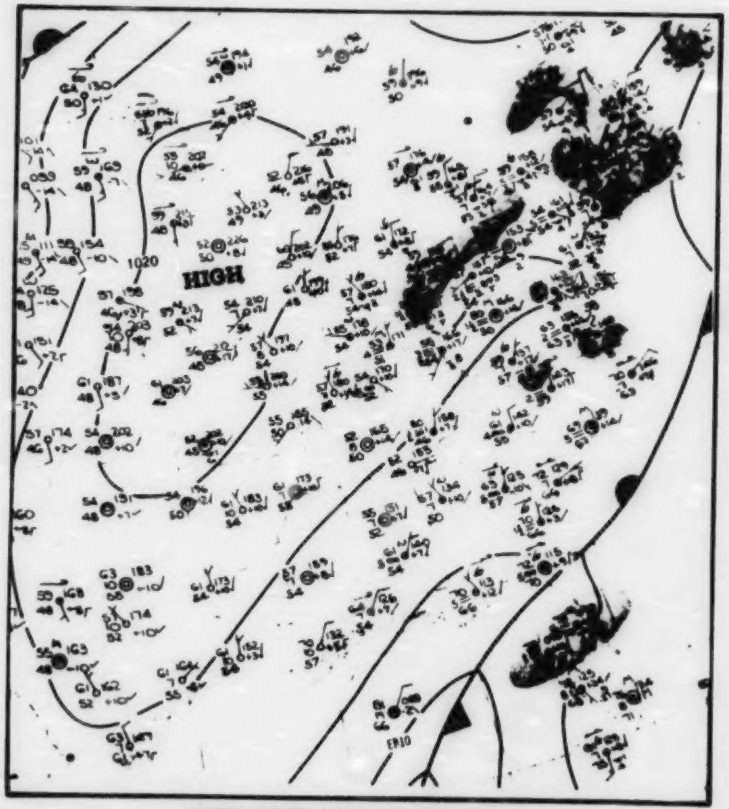
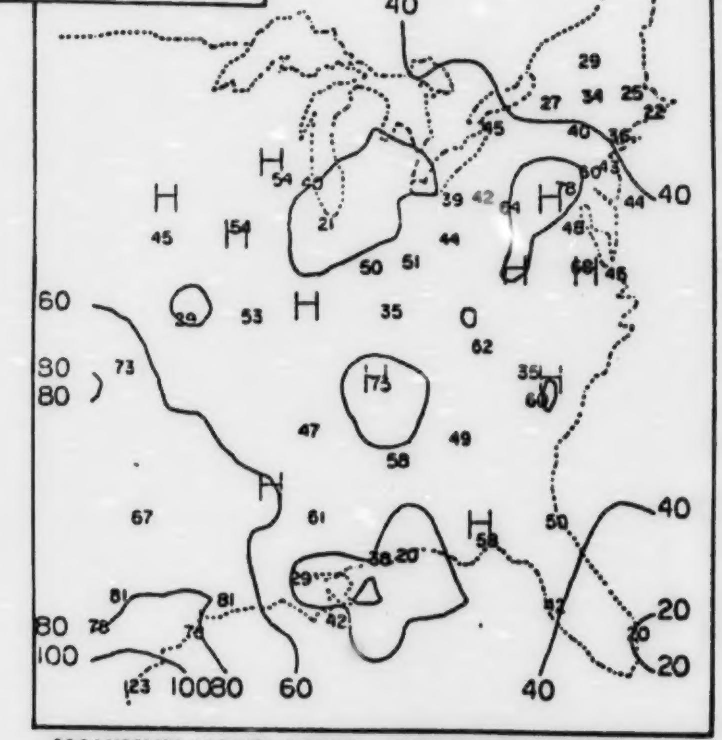
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, JUNE 25, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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62
73
173
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49
67
61
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38
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42
82
81
76
78
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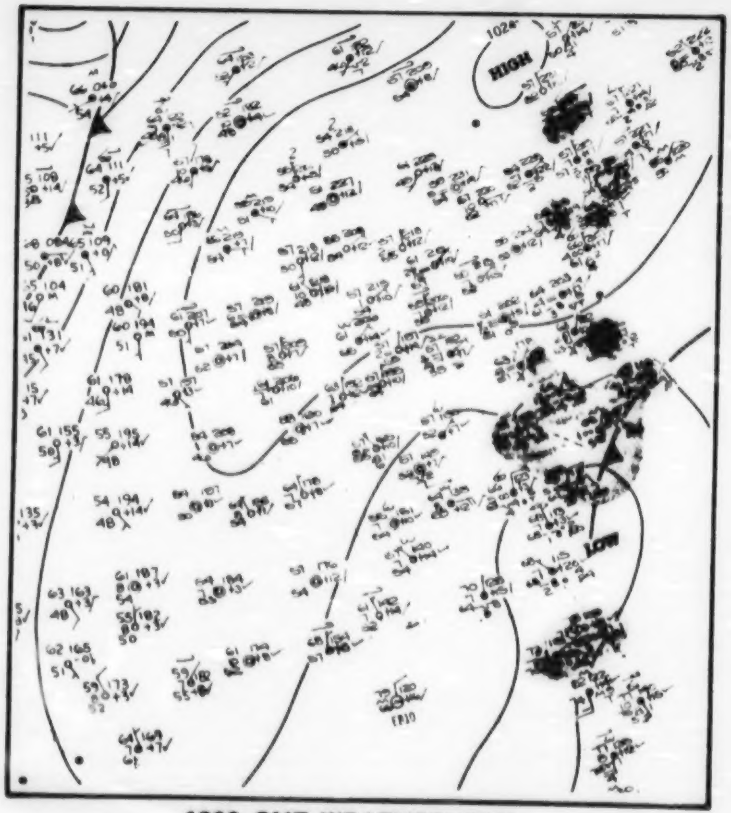
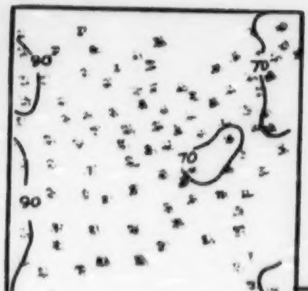
123
10080

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

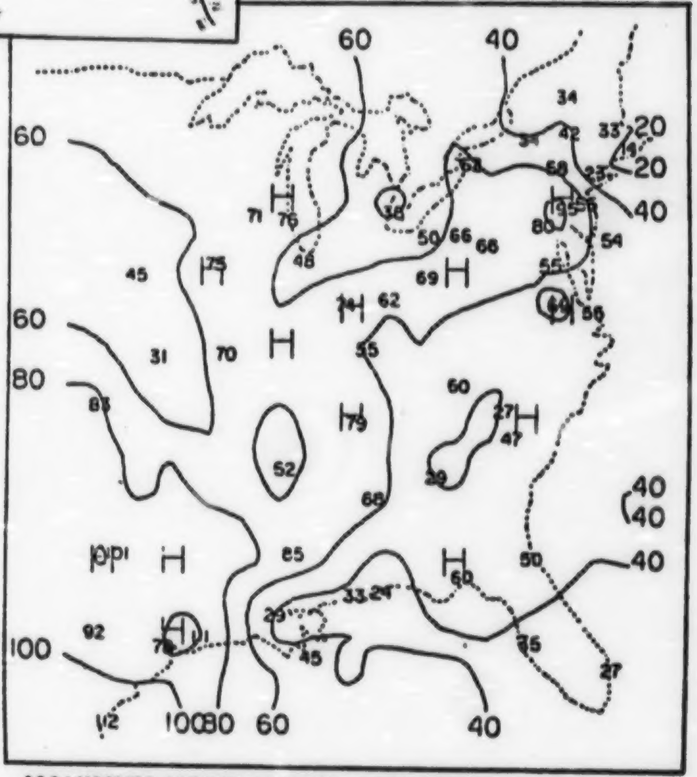
WEDNESDAY, JUNE 26, 1974


1024
HIGH
LOW

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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79
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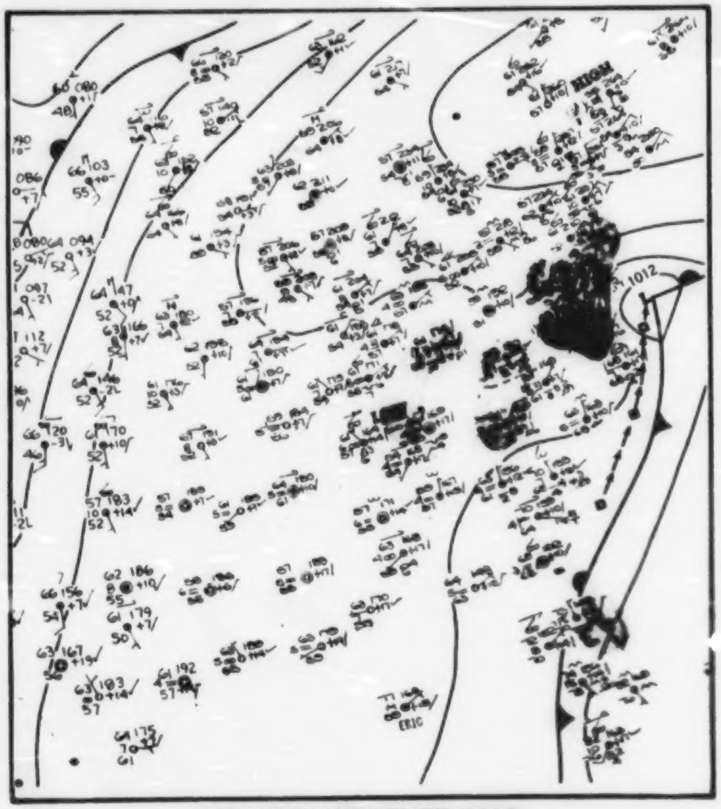
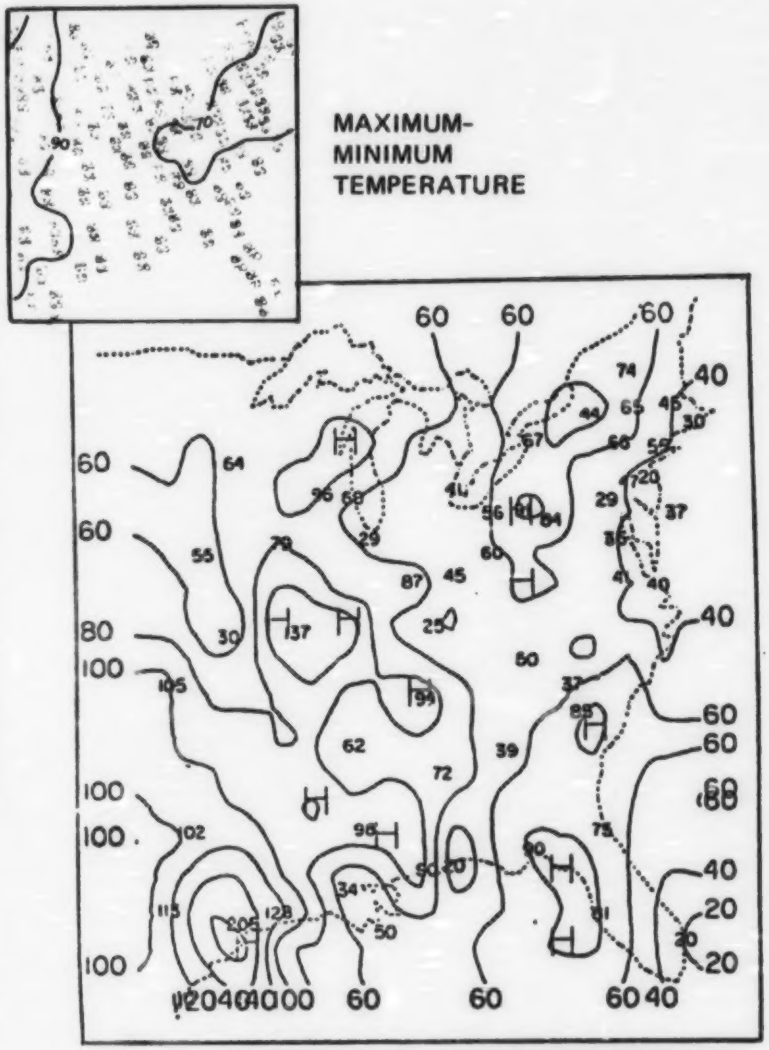
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, JUNE 27, 1974



1200 GMT WEATHER MAP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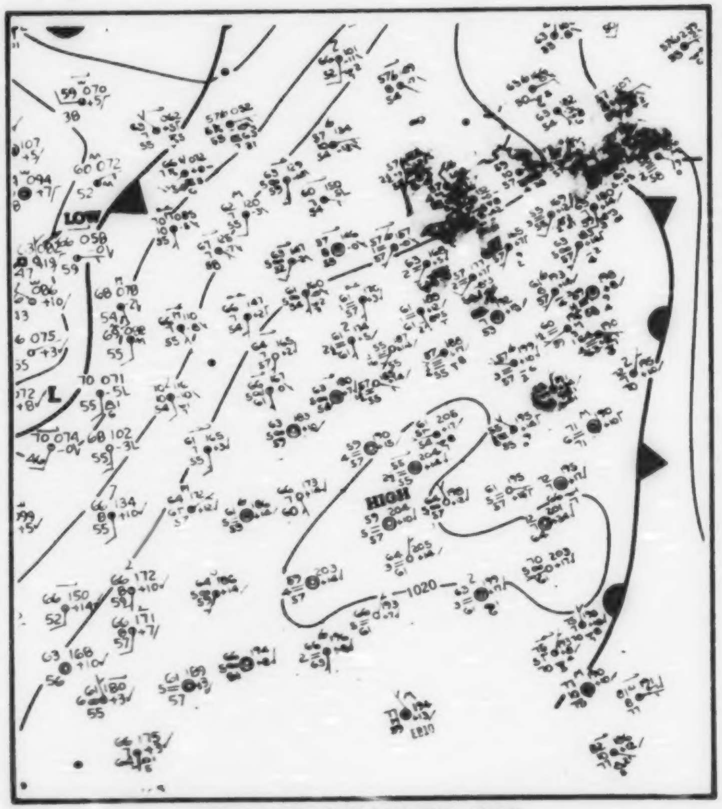
MAXIMUM-
MINIMUM
TEMPERATURE

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, JUNE 28, 1974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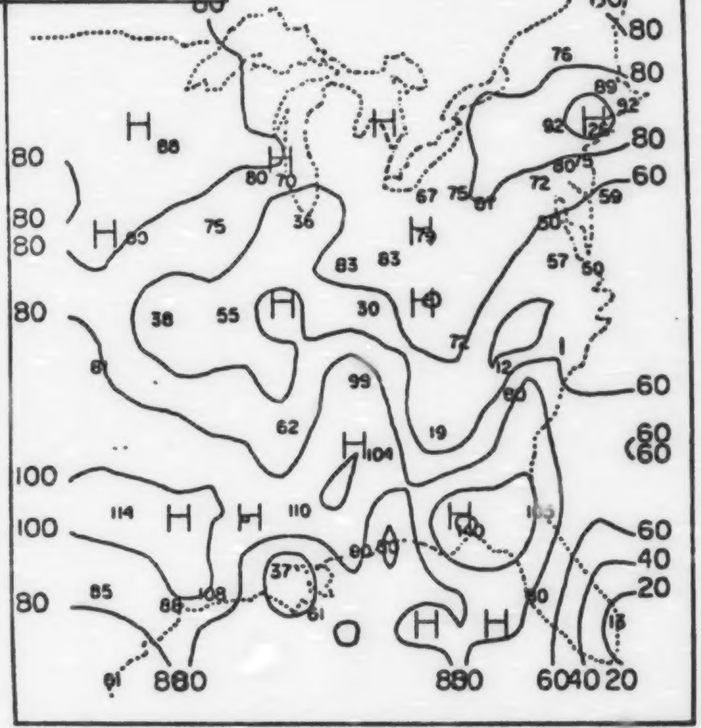
1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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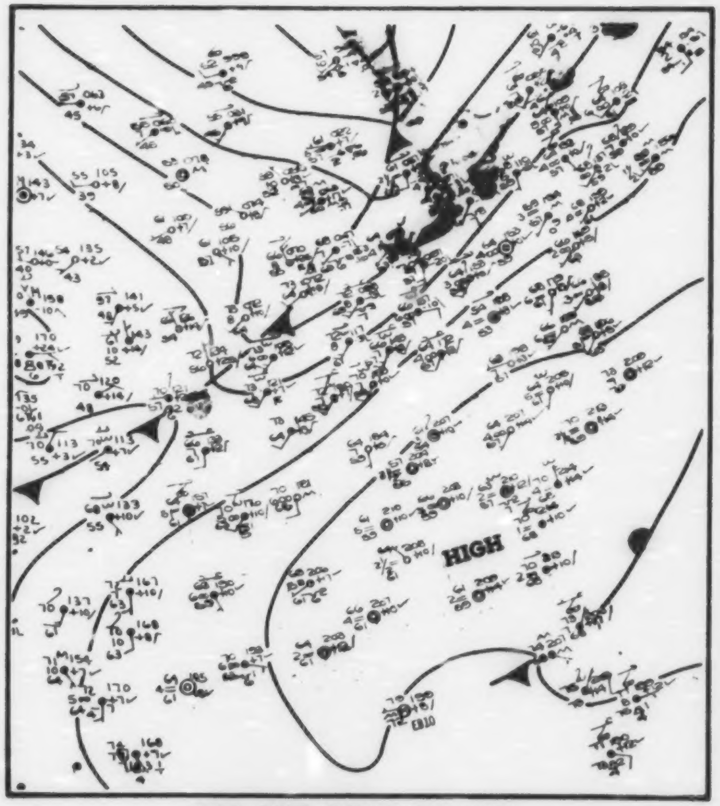
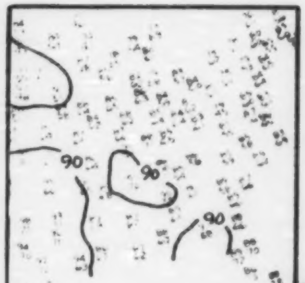
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

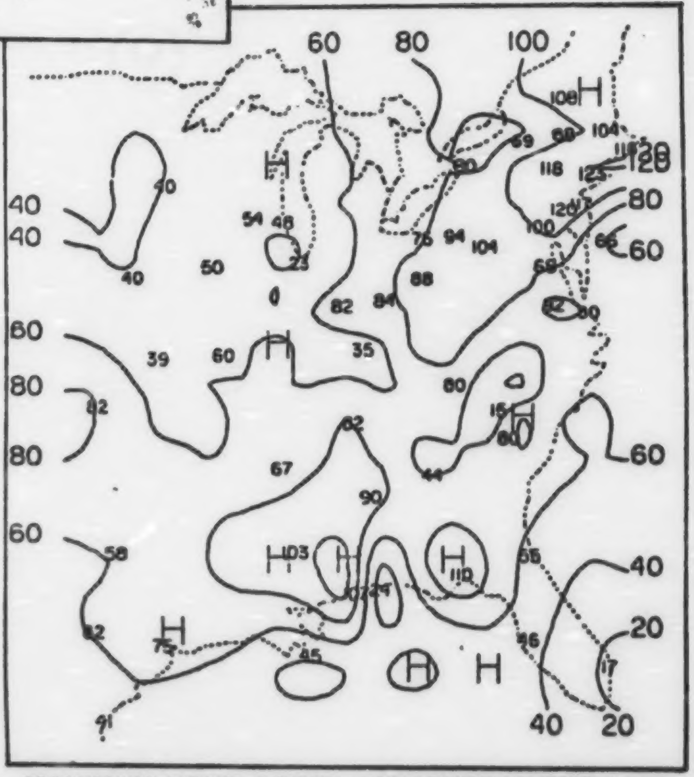
SATURDAY, JUNE 29, 1974



1200 GMT WEATHER MAP



MAXIMUM-MINIMUM TEMPERATURE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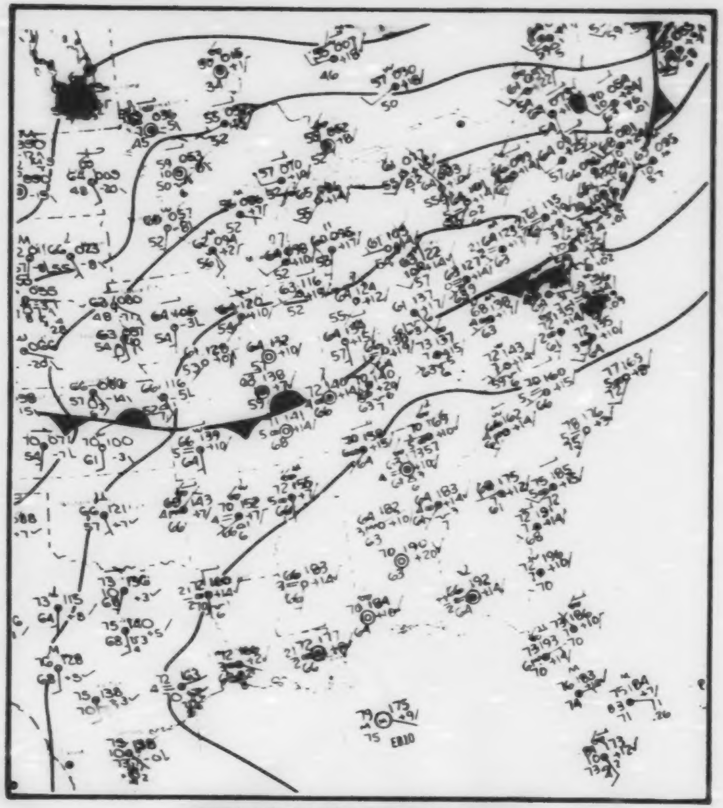
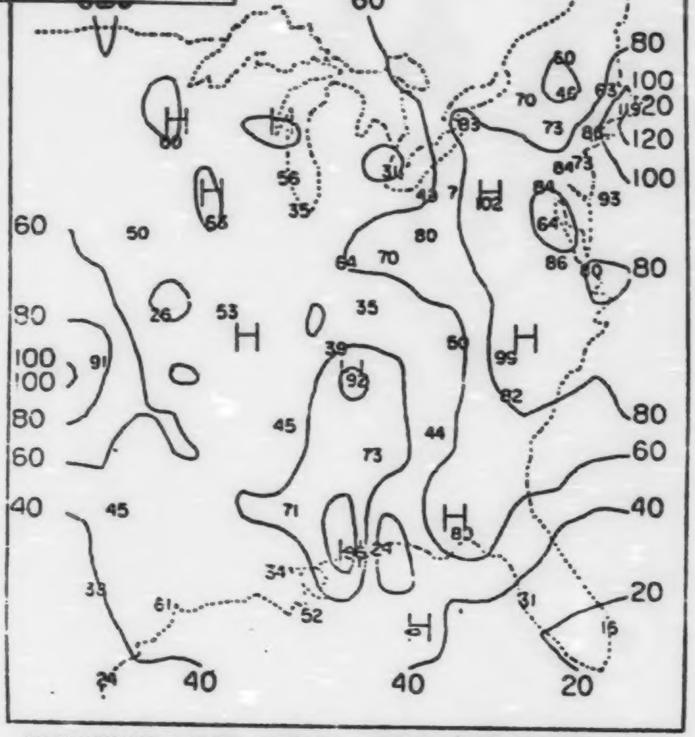
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, JUNE 30, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE



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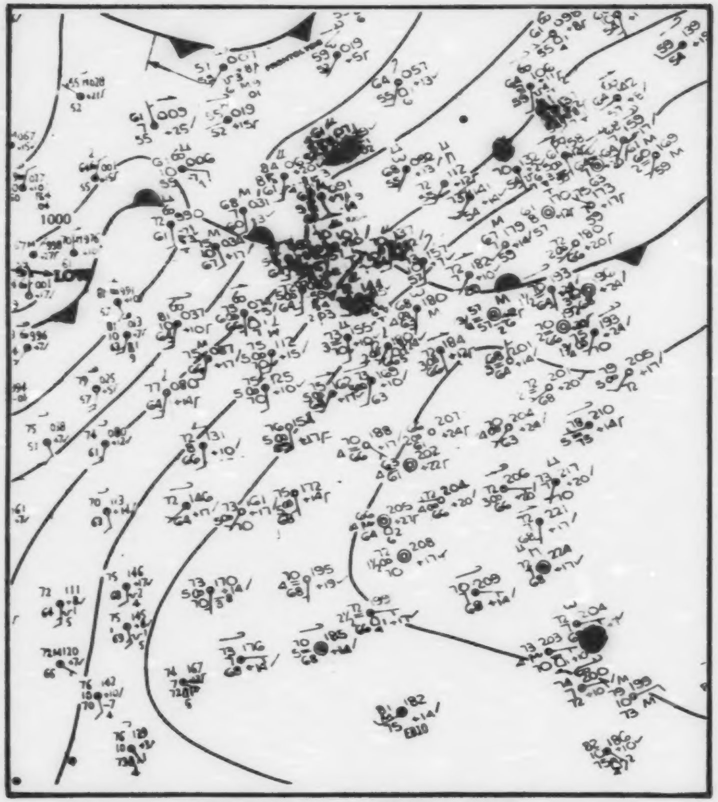
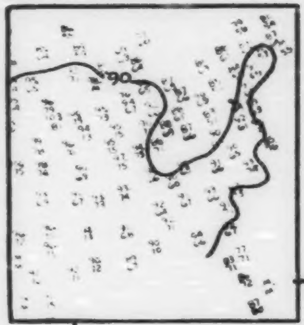
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

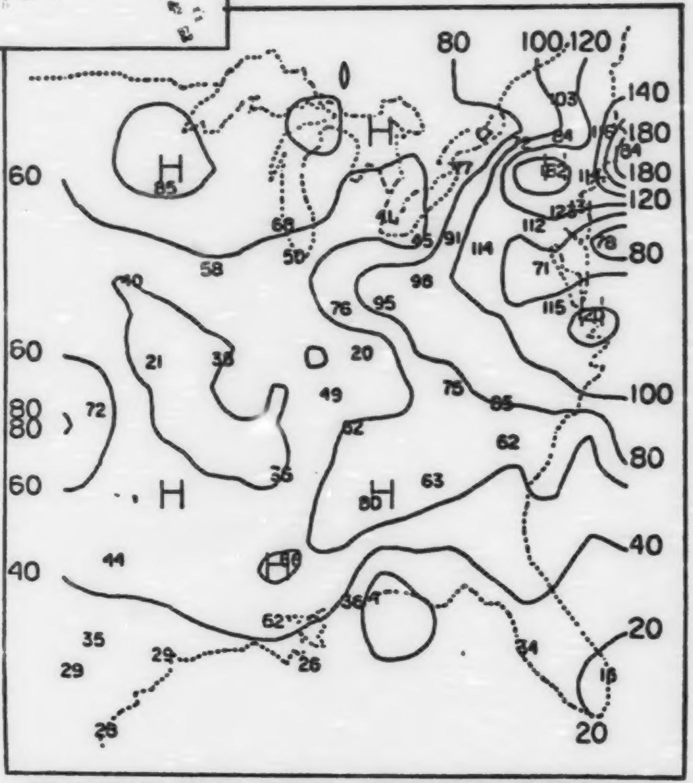
MONDAY, JULY 1, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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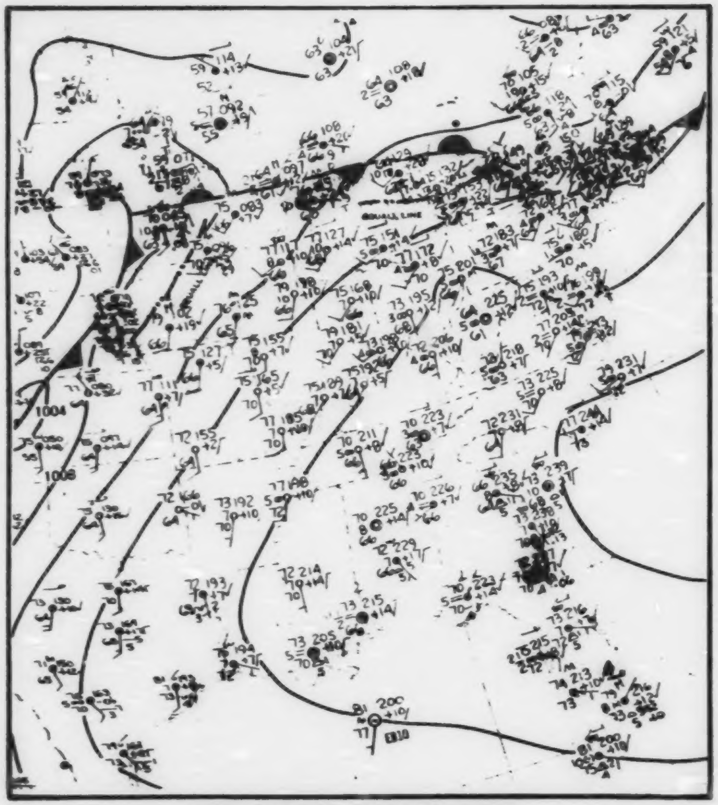
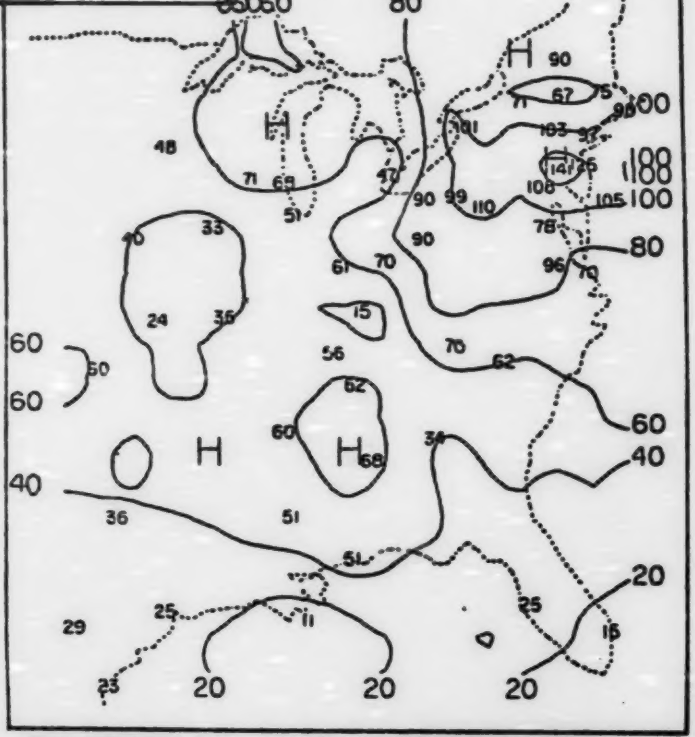
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, JULY 2, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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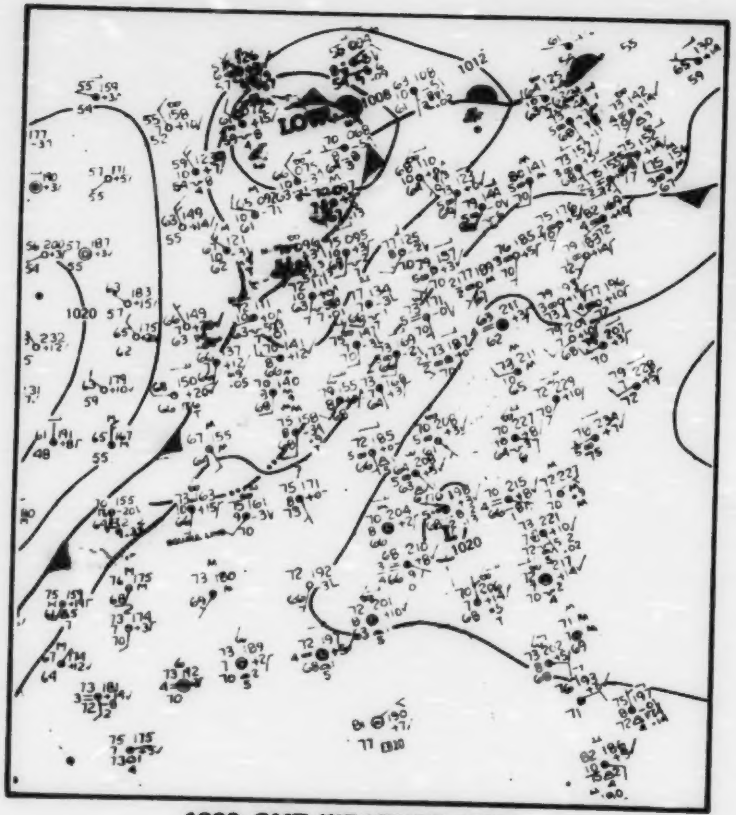
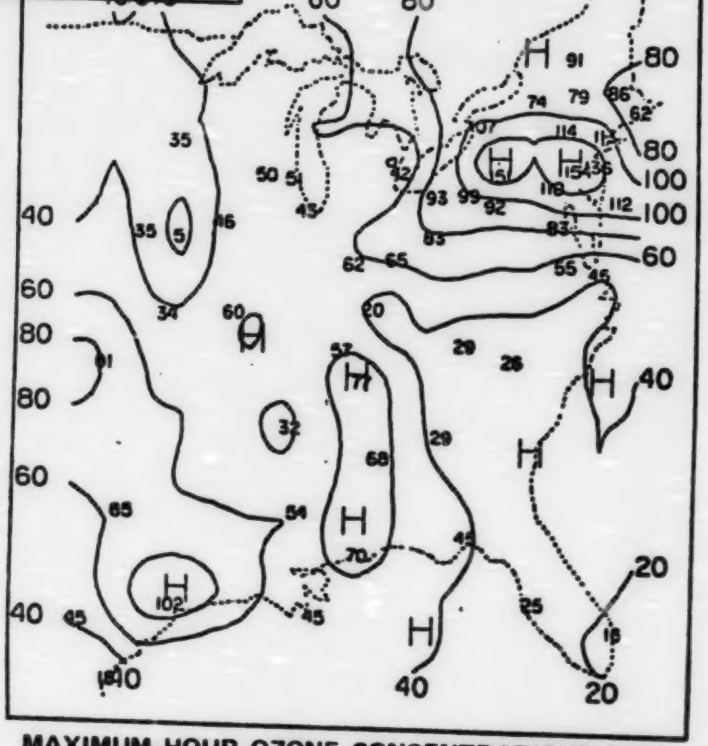
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, JULY 3, 1974



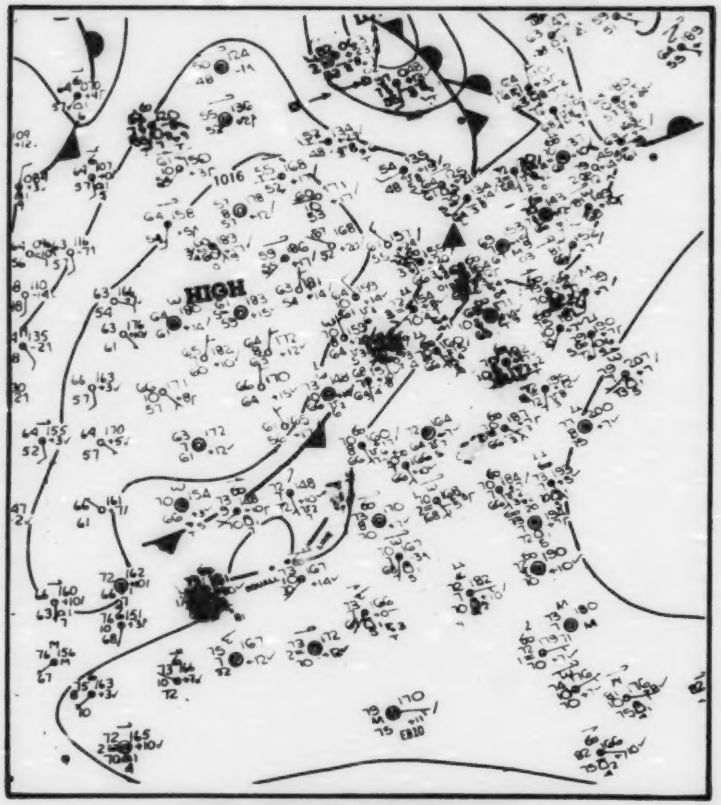
1200 GMT WEATHER MAP

MAXIMUM-MINIMUM TEMPERATURE



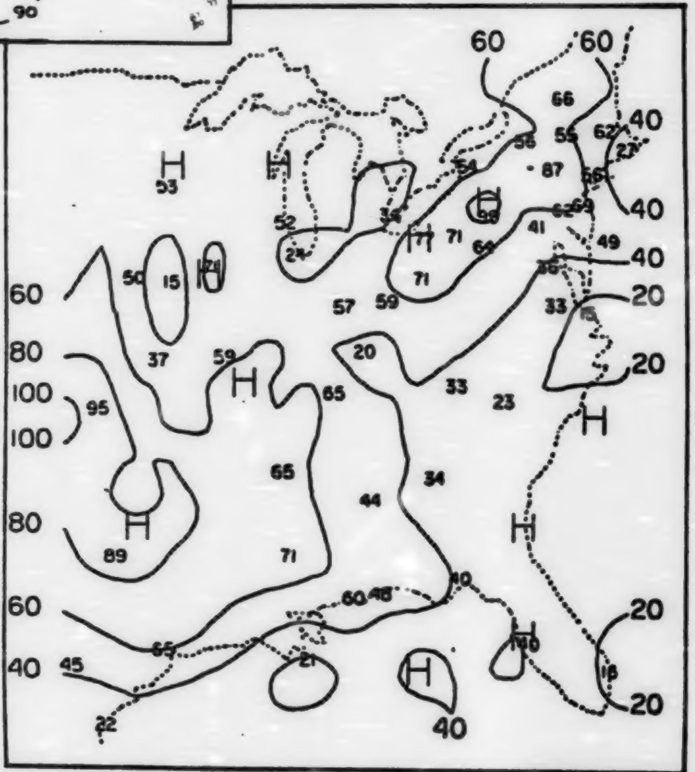
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, JULY 4, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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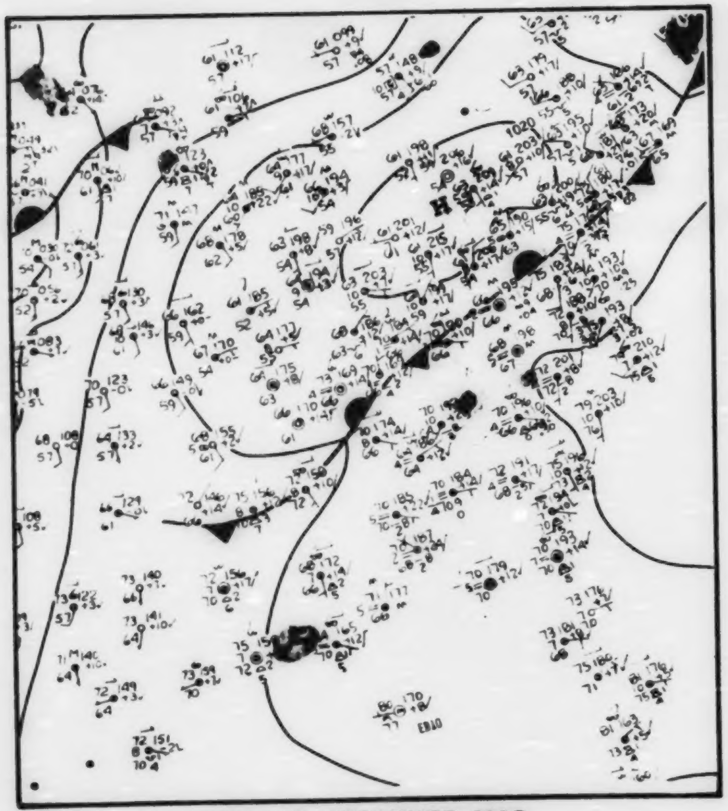
71
37
95
89
45
22
87
66
55
62
71

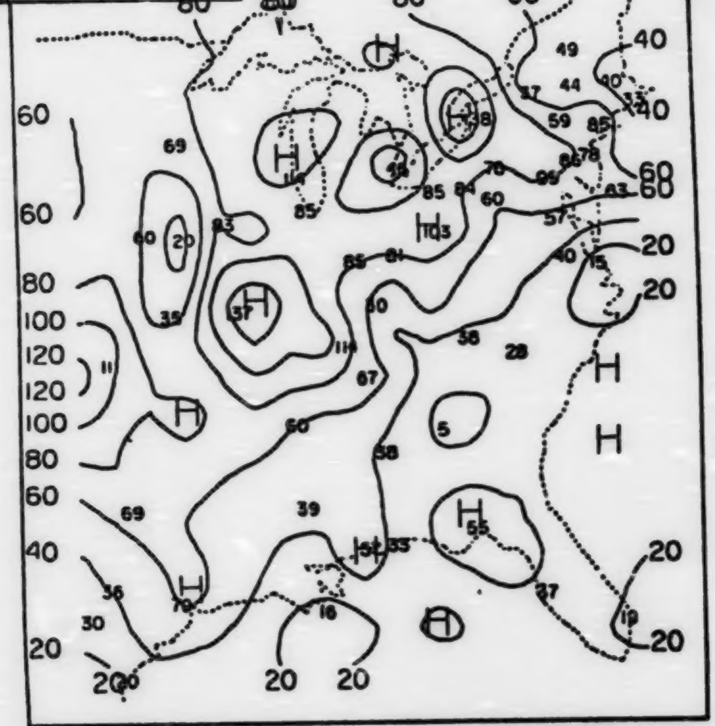
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, JULY 5, 1974



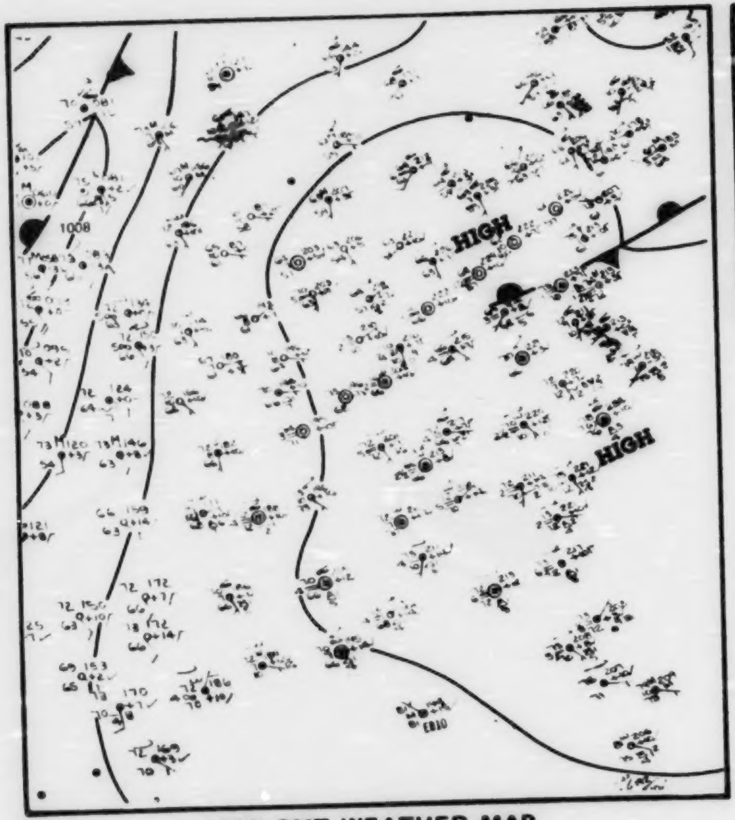
1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE



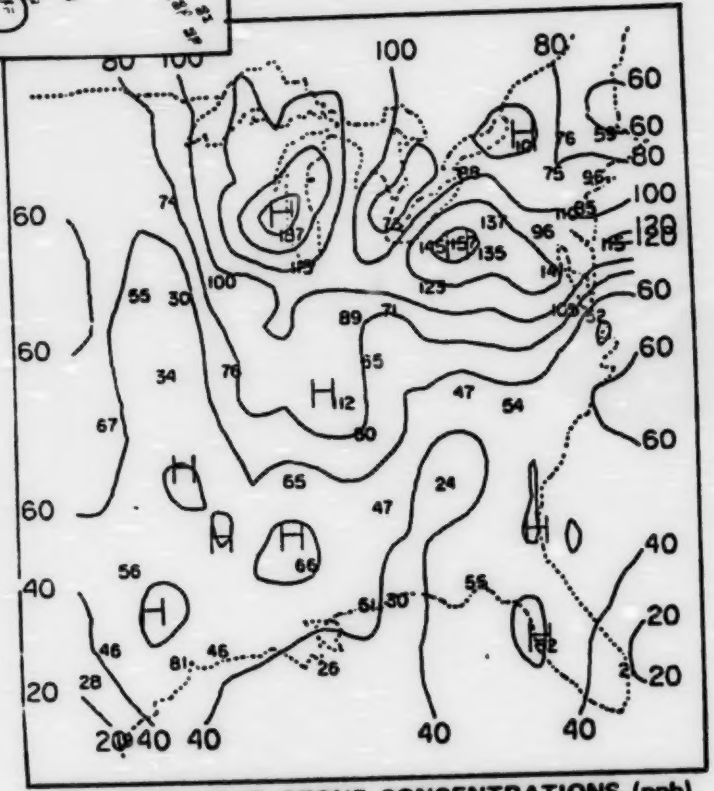
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, JULY 6, 1974


HIGH
HIGH
1008

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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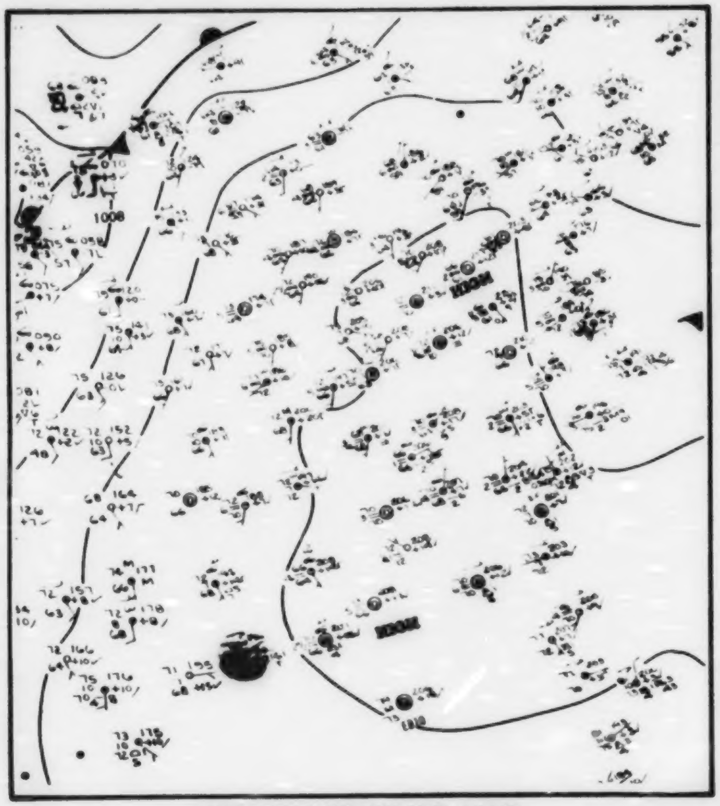
28
62

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, JULY 7, 1974



1200 GMT WEATHER MAP

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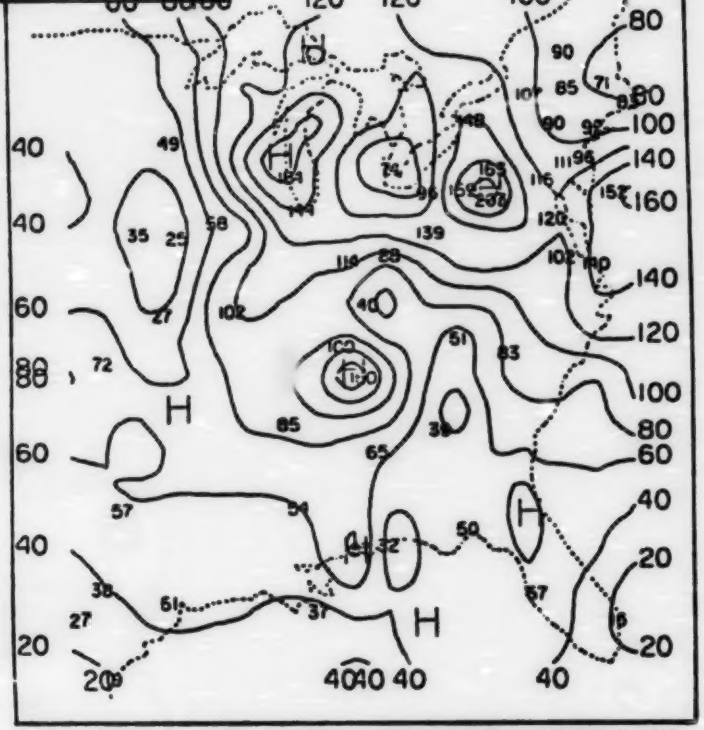
MAXIMUM-
MINIMUM
TEMPERATURE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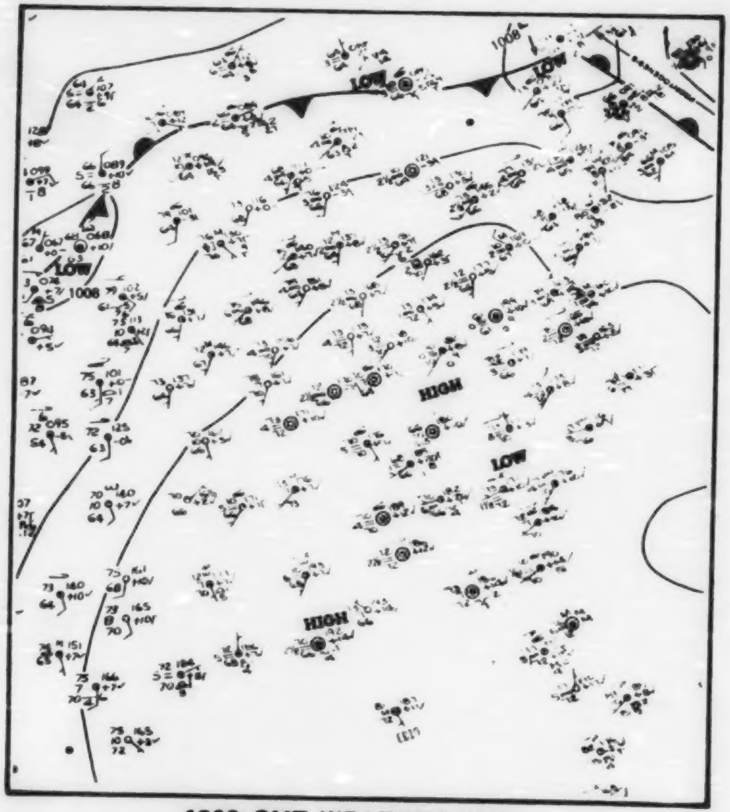
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, JULY 8, 1974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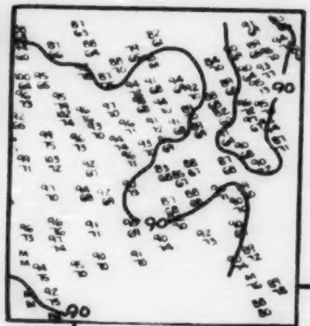
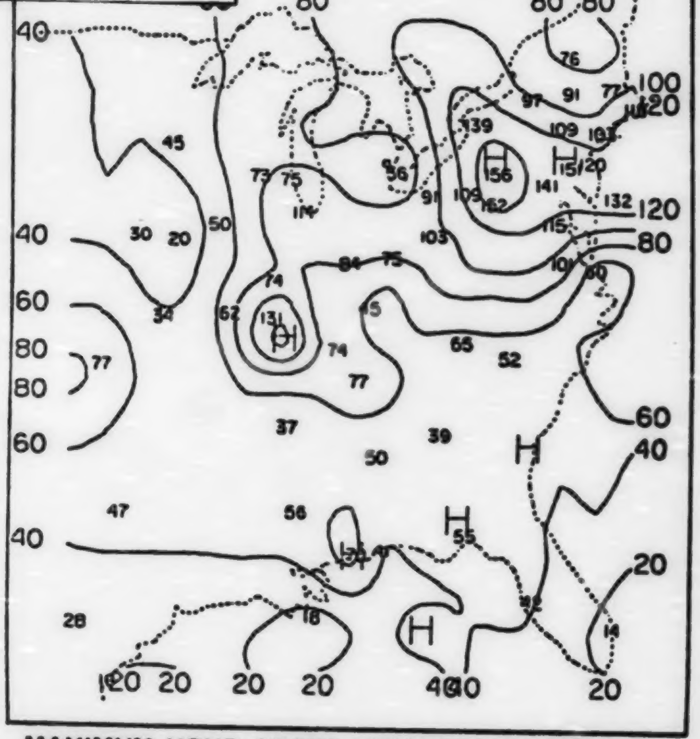
1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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97
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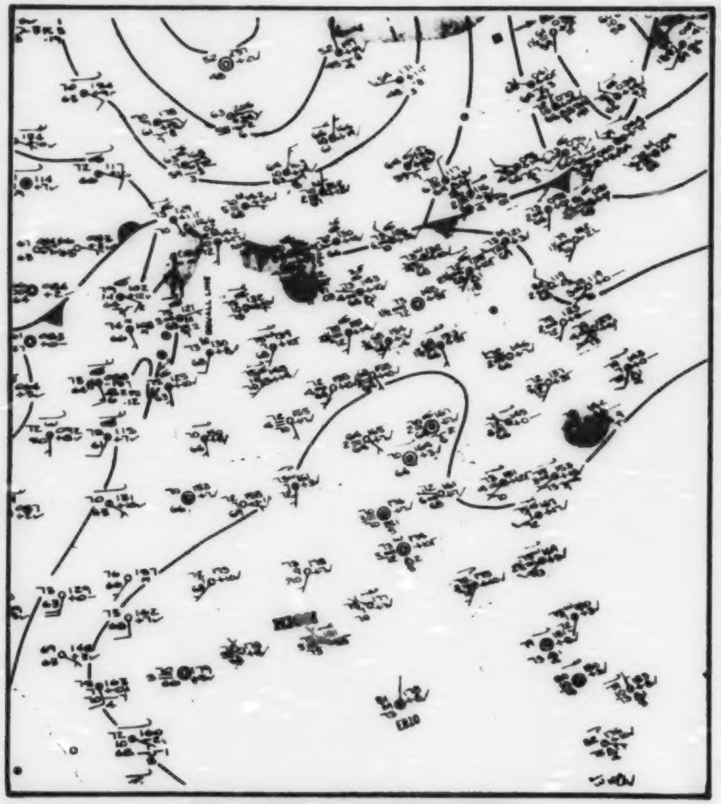
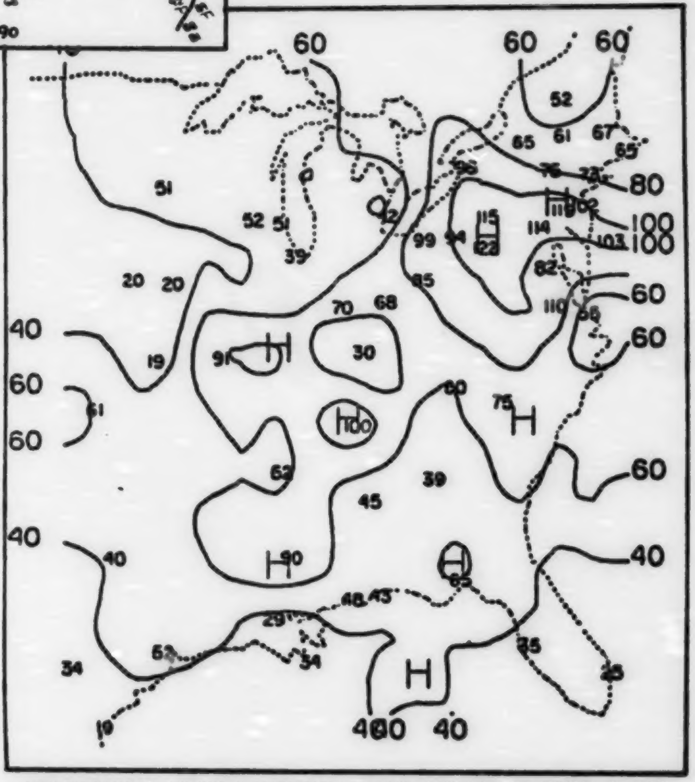
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, JULY 9, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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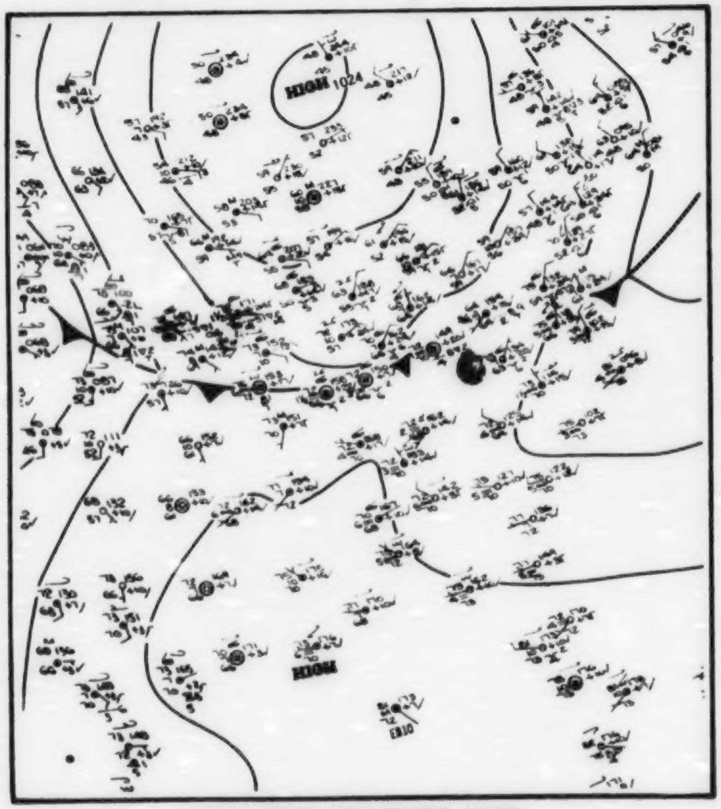
61

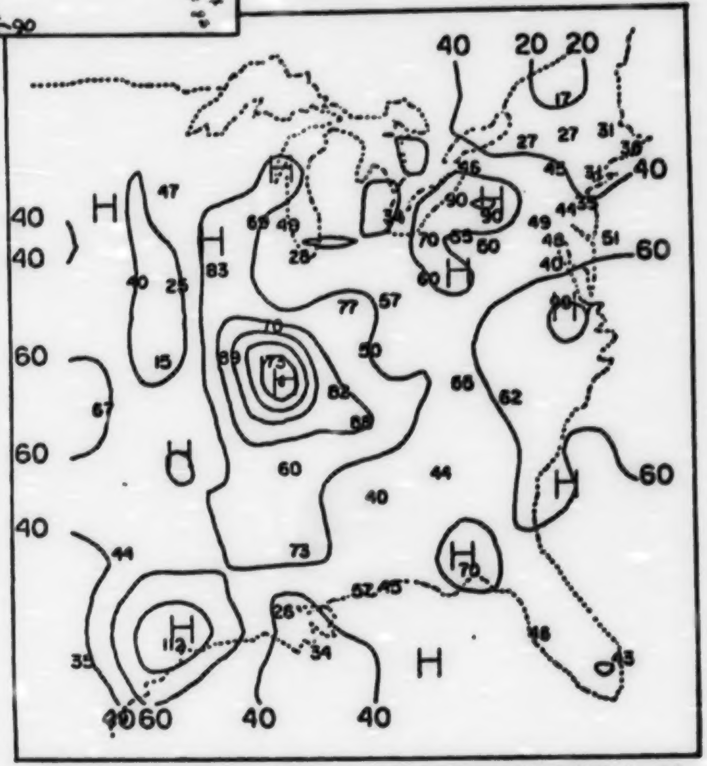
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, JULY 10, 1974


HIGH 1024
HIGH

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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173
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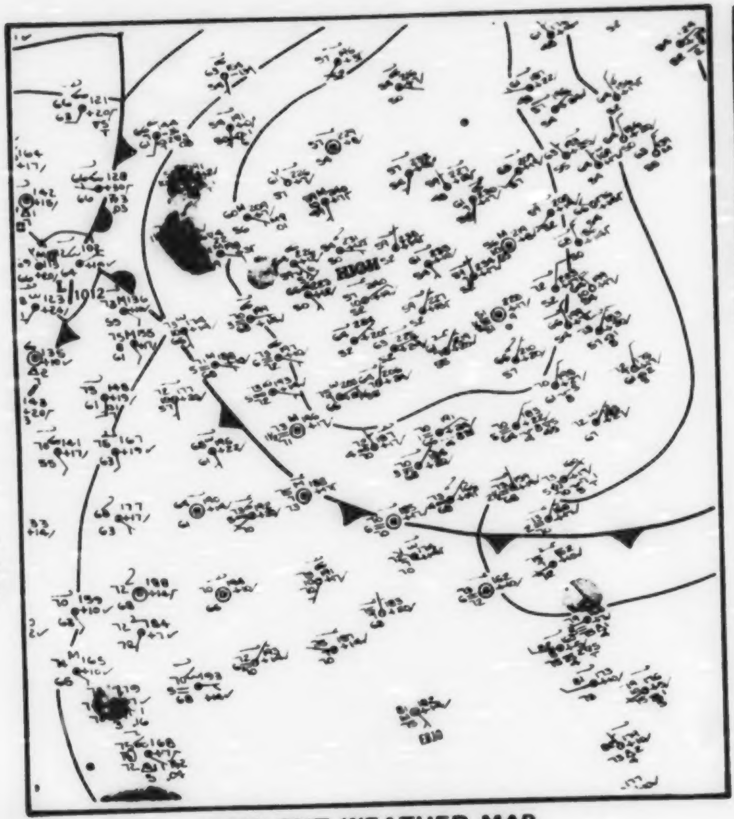
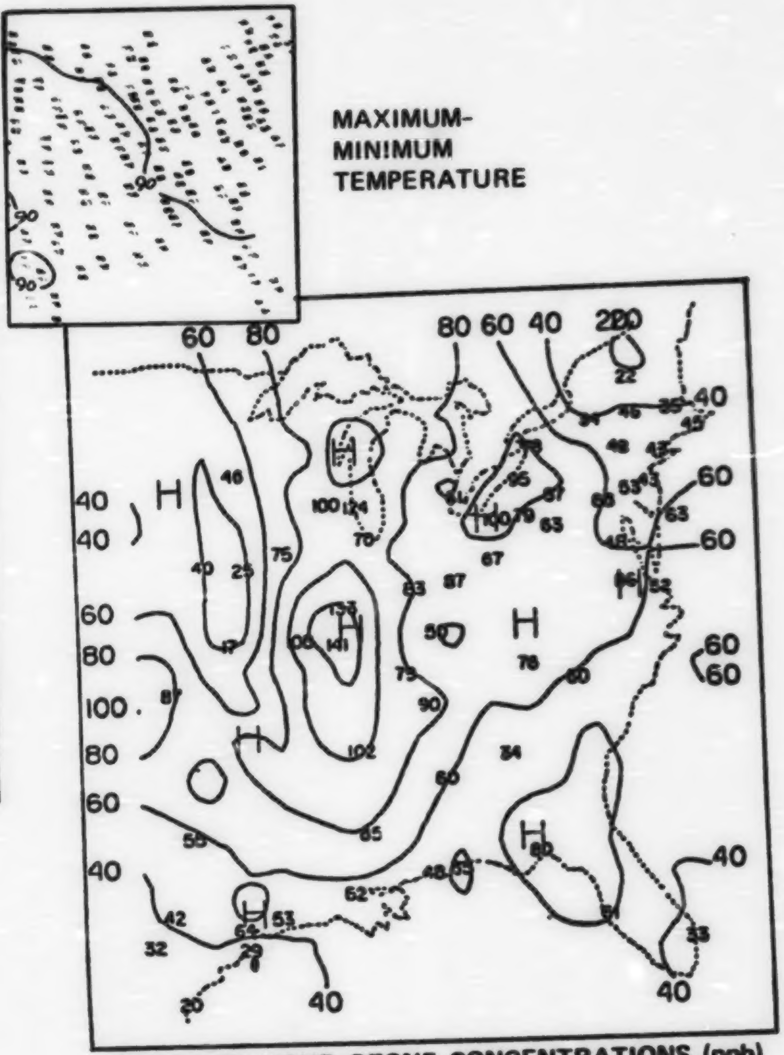
57

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, JULY 11, 1974



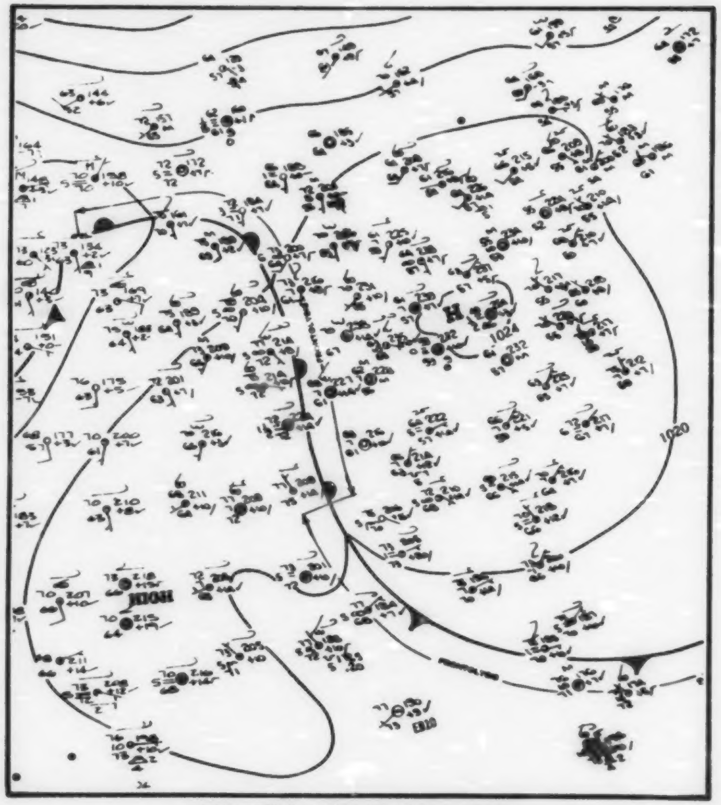
1200 GMT WEATHER MAP


90
90
90
H
40
60
80
100
220

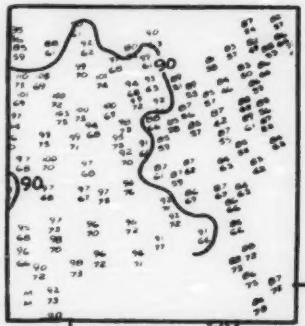
MAXIMUM-
MINIMUM
TEMPERATURE

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

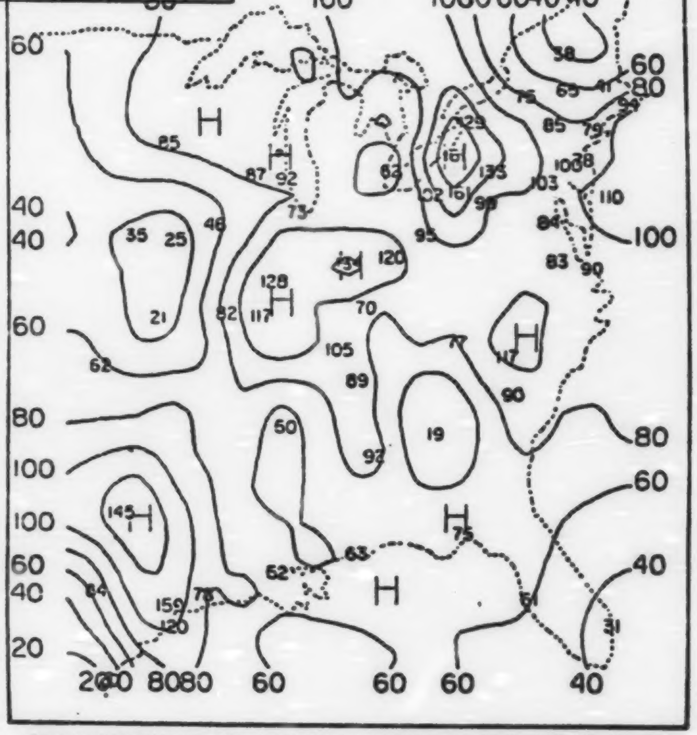
FRIDAY, JULY 12, 1974


HIGH
H
1024
1020

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE


100
1030
60
40
40
60
80
100
60
40
40
60
80
100
100
60
40
20
200
80
80
60
60
60
40
60
80
60
40
100
H
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H
H
H
H
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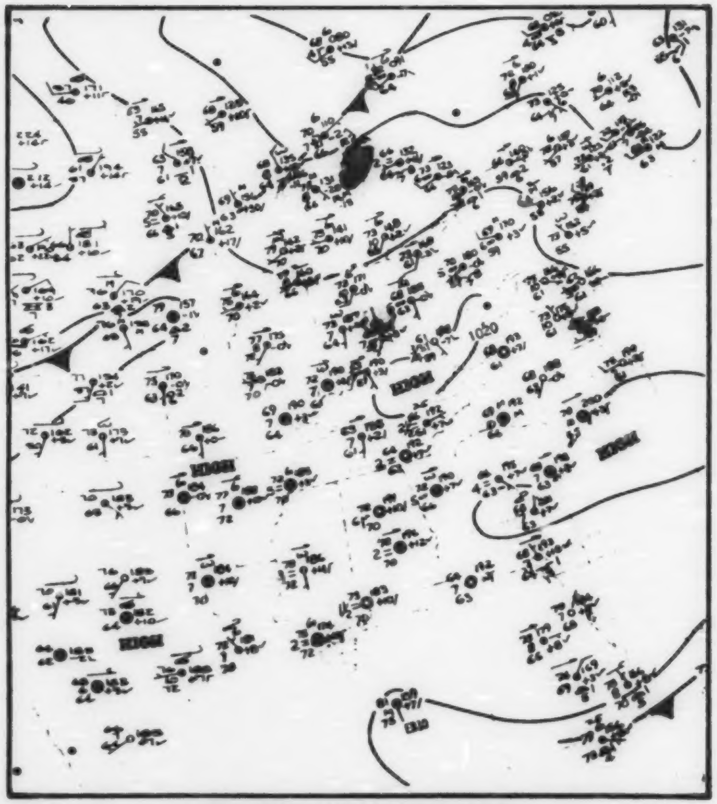
85
87
92
73
35
25
46
21
62
128
117
82
120
70
105
89
50
92
19
145
159
120
78
64
52
63
75
51
31
117
90
77
83
90
84
110
103
108
95
98
161
135
129
102
62
65
79
58

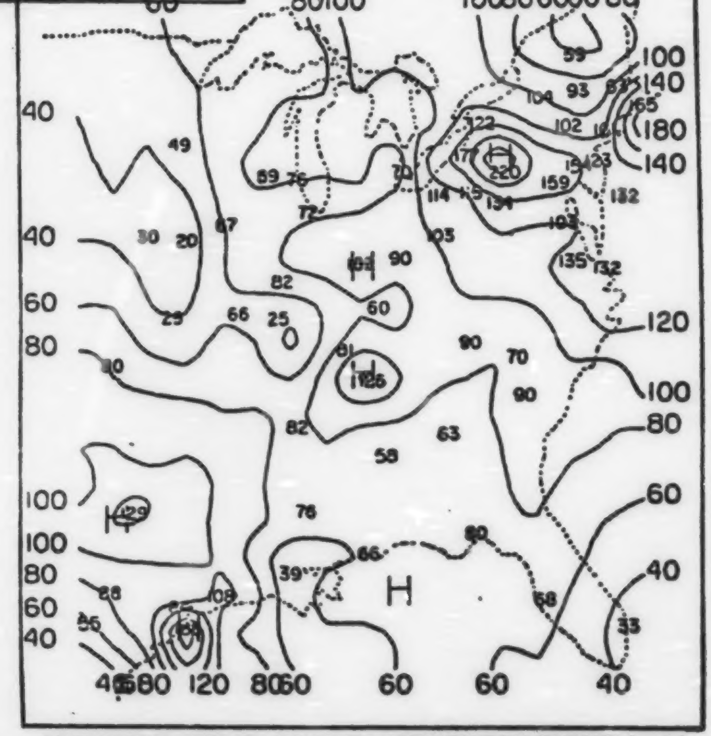
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, JULY 13, 1974



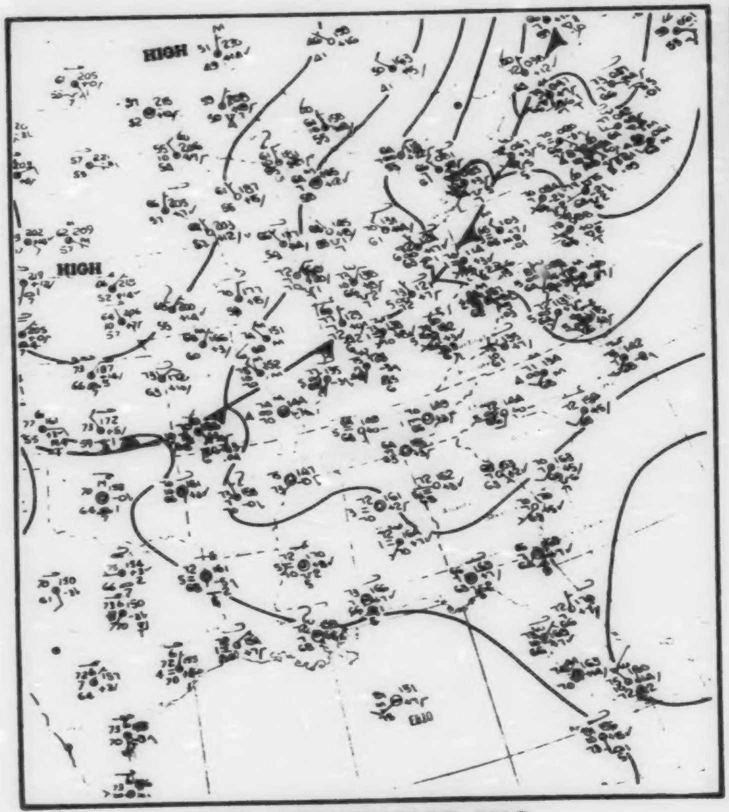
1200 GMT WEATHER MAP

MAXIMUM-MINIMUM TEMPERATURE



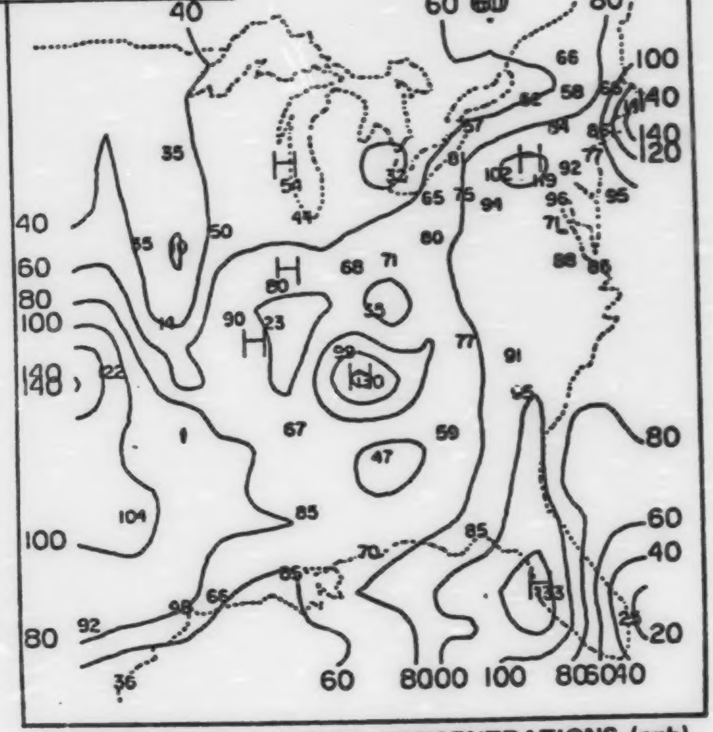
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, JULY 14, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE


40
60
80
100
140
148
100
80
92
36
60
8000
100
806040
20
40
60
80
120
140
140
100
80
60 60
35
55
50
14
22
104
85
67
47
59
130
99
90
23
80
H
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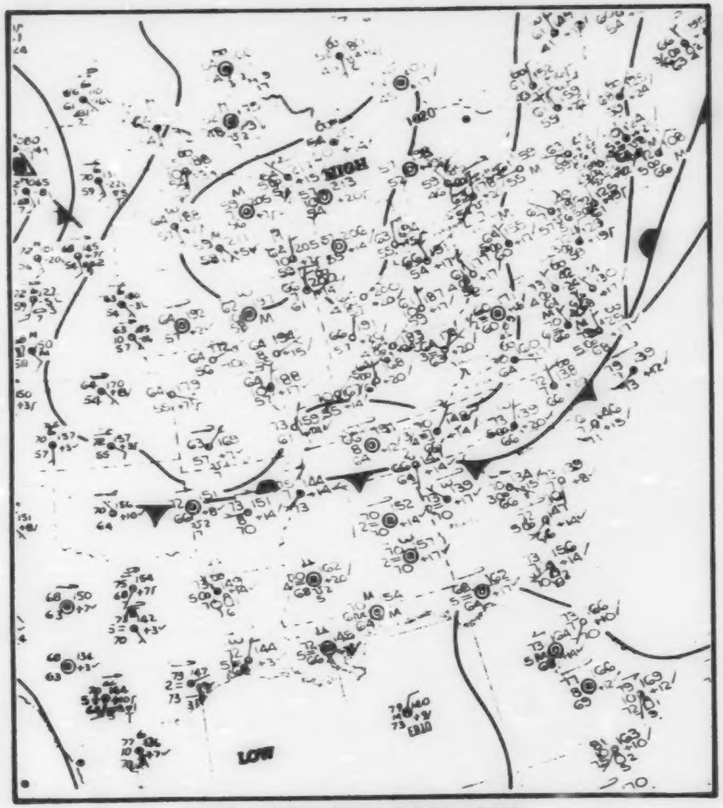
133
102
119
91
77
85
70
86
66
98

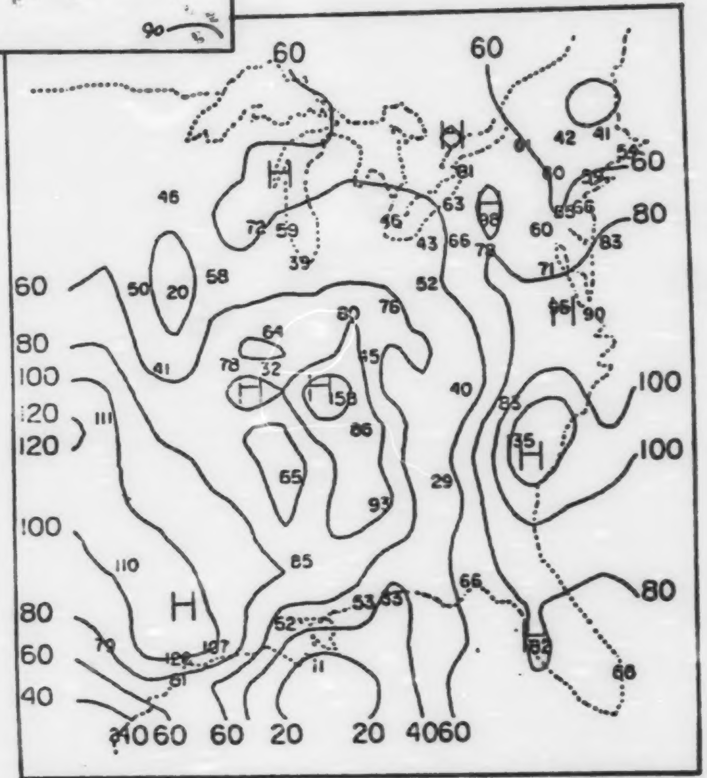
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, JULY 15, 1974


HIGH
LOW
1020

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE


60
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80
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40
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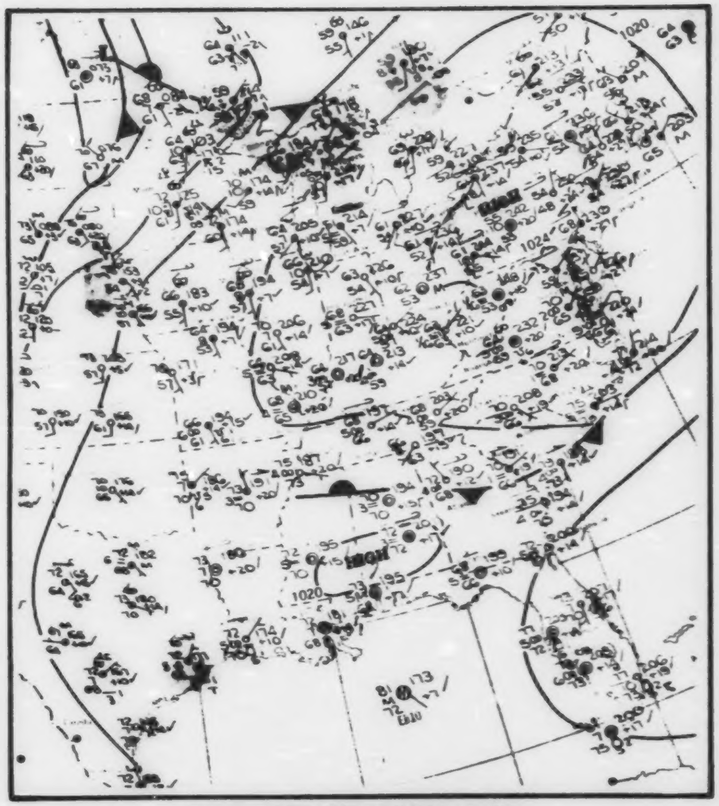
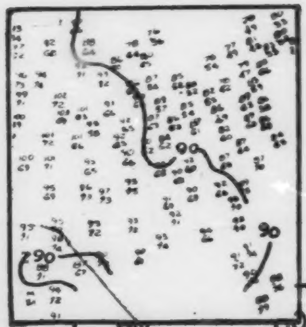
60
60
20
20
40
60
80
100
100
80
60
80
H
H
H
H
H
111
110

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

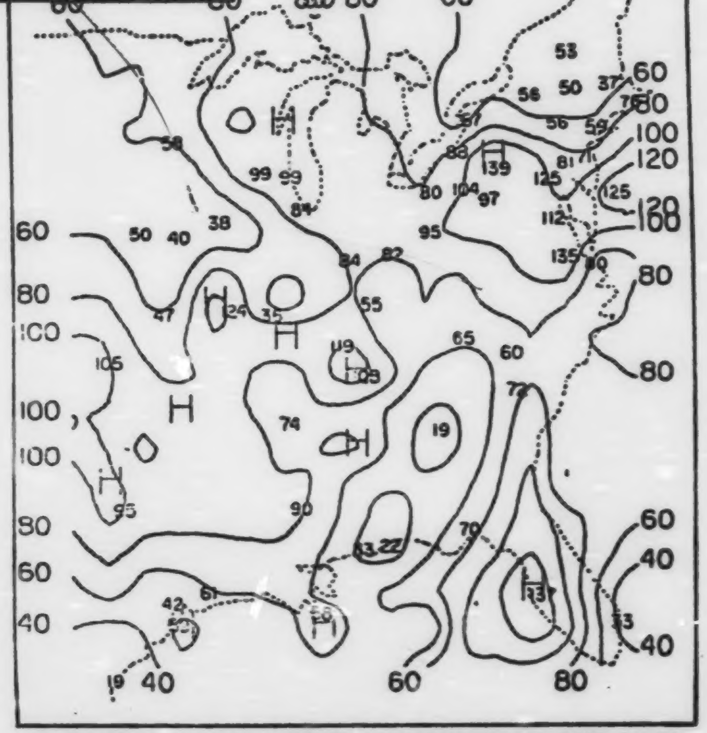
TUESDAY, JULY 16, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE


60
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40
60
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80
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120
120
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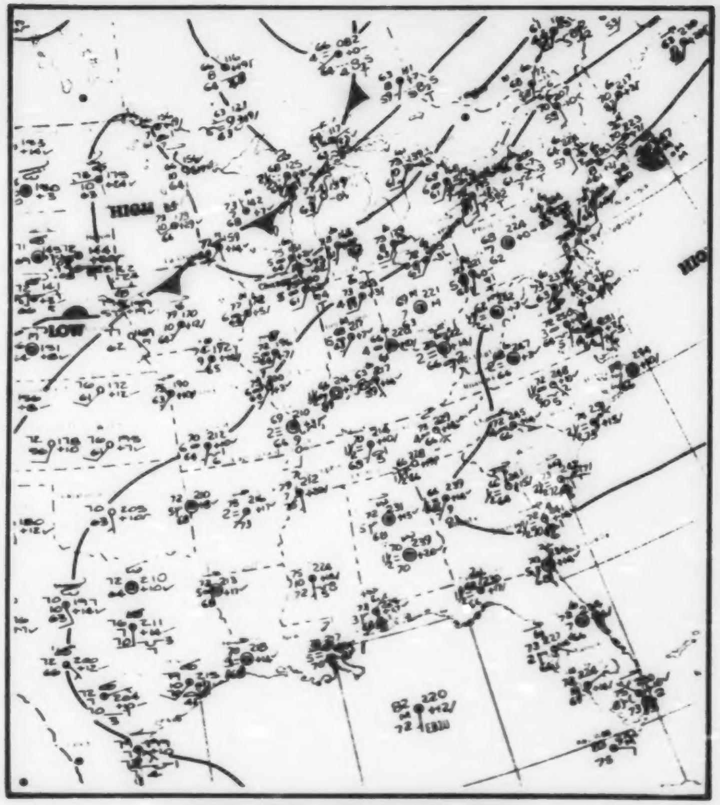
139
135
125
112
19
74
105
95
50
40
38
99
99
55
65
60
72
70
137
53
50
37
56

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

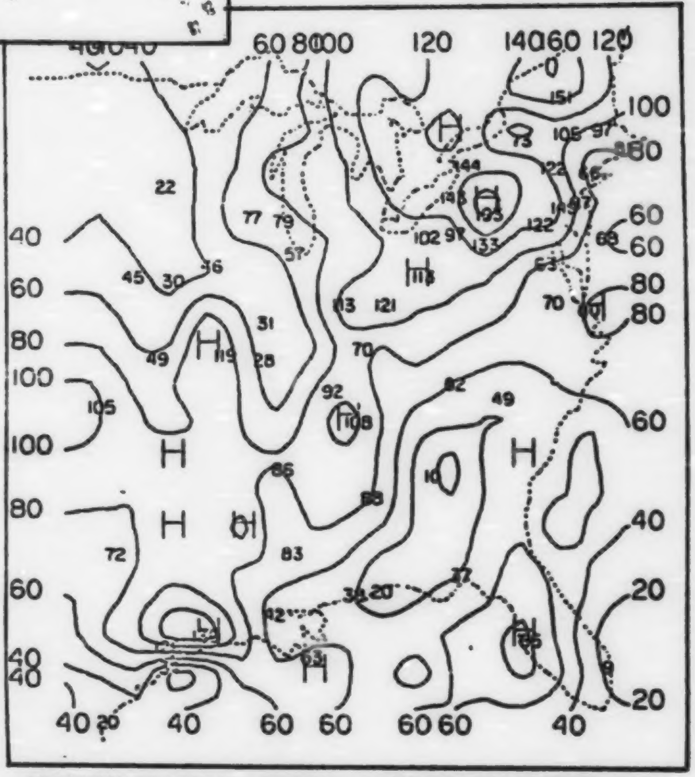
WEDNESDAY, JULY 17, 1974



1200 GMT WEATHER MAP

HIGH
LOW
HIGH

MAXIMUM-
MINIMUM
TEMPERATURE



MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

40
60
80
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100
80
60
40
40
60
80
100
120
140
60
120
100
60
60
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20
20
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60
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60
40
20
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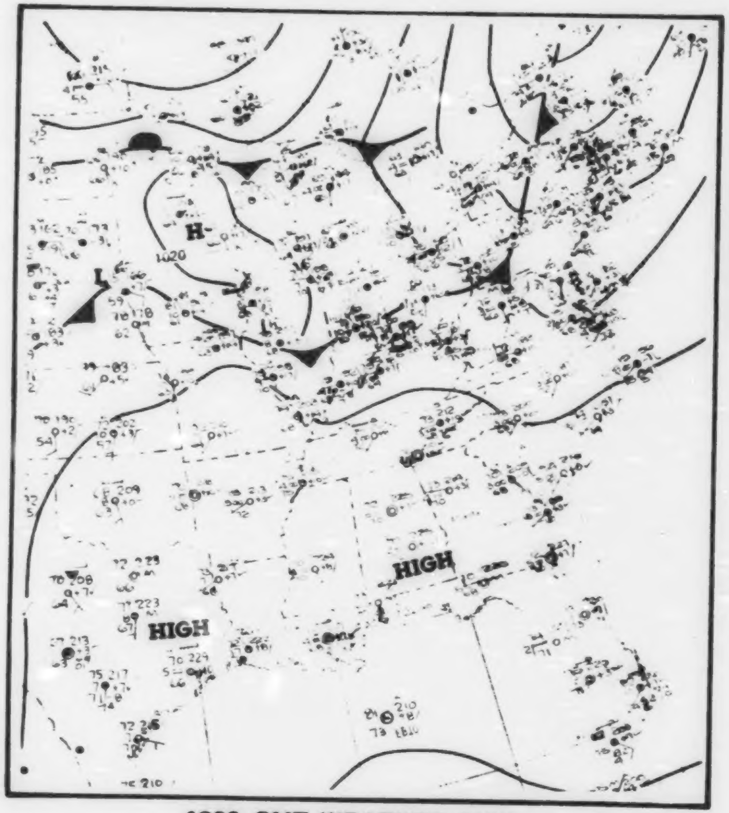
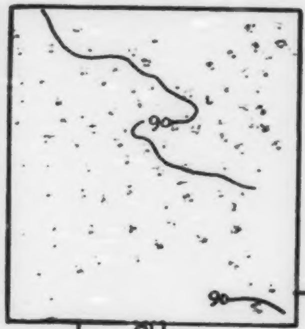
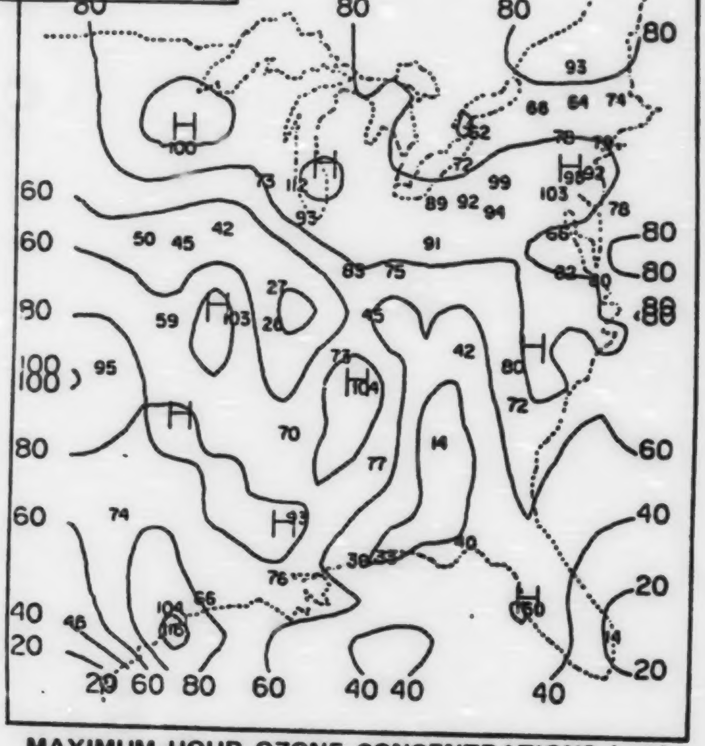
THURSDAY, JULY 18, 1974


H
L
1020
HIGH
HIGH

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE


80
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93
68
64
74
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78
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72
99
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92
103
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112
93
89
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94
91
66
82
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42
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83
75
90
59
103
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42
100
95
73
104
80
72
80
70
77
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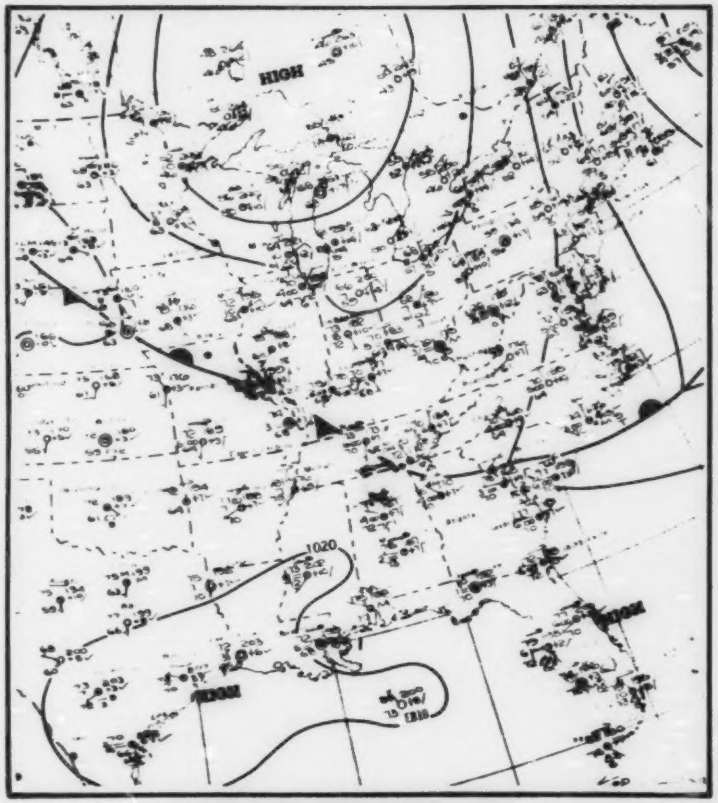
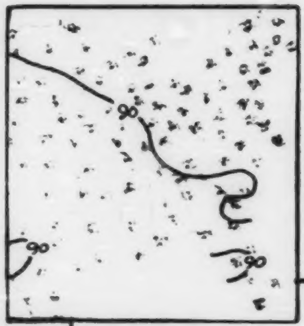
74
93
40
40
38
33
76
56
104
116
60
150
20
40
20
46
14
20
20
60
80
60
40
40
40

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

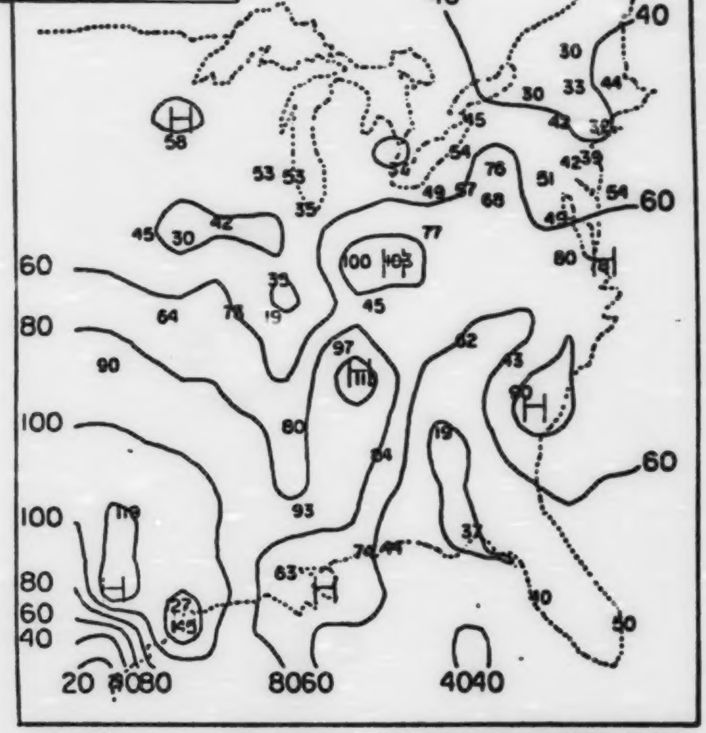
FRIDAY, JULY 19, 1974


HIGH
1020
HIGH

1200 GMT WEATHER MAP

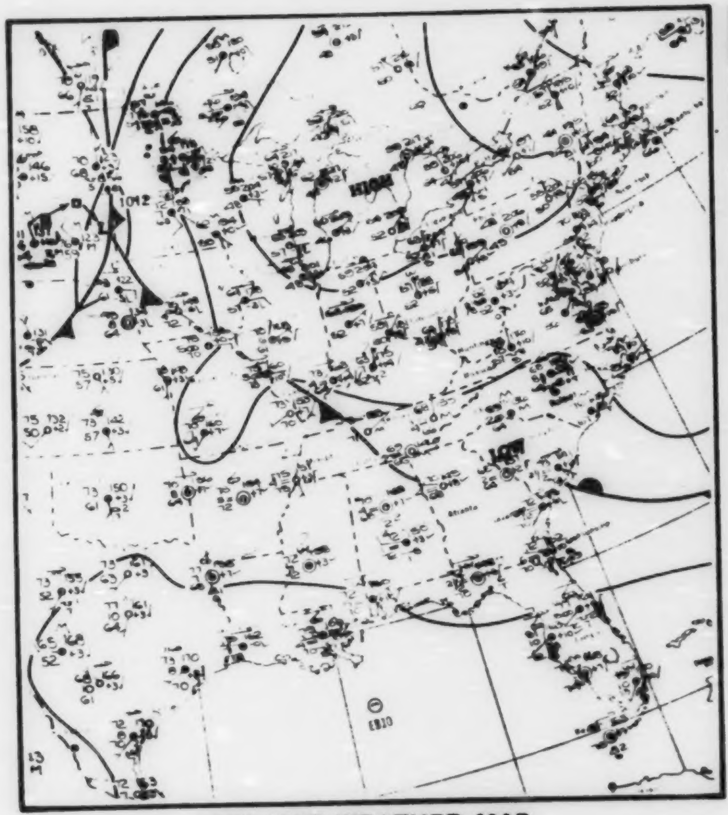


MAXIMUM-
MINIMUM
TEMPERATURE


40
40
60
60
60
80
100
100
80
60
40
20
8080
8060
4040
H
H
H
H
H
H
103
111
27
58
100
97
90
119

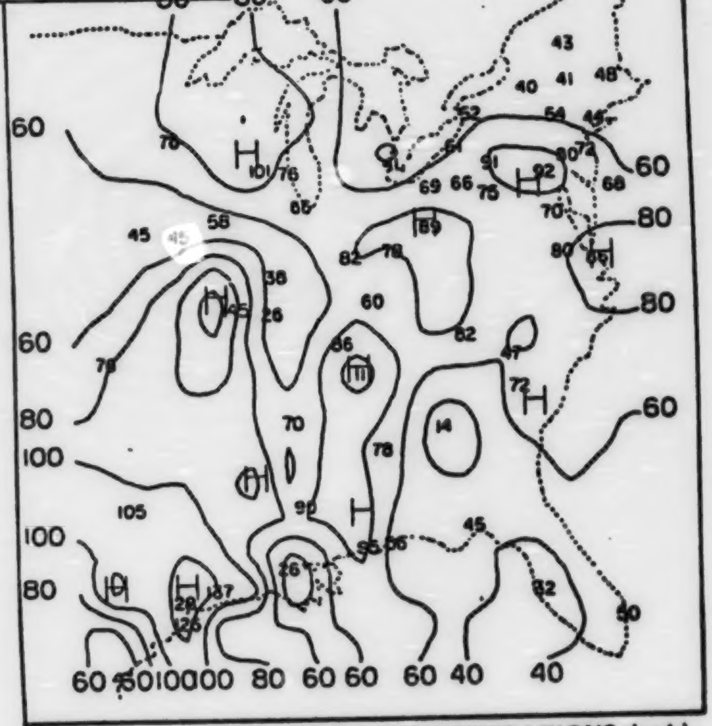
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, JULY 20, 1974



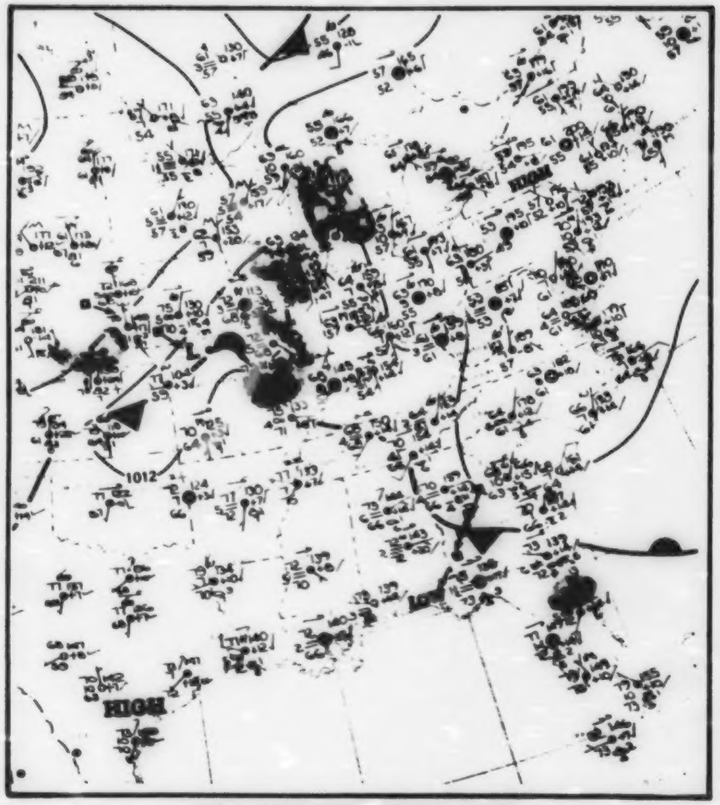
1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE



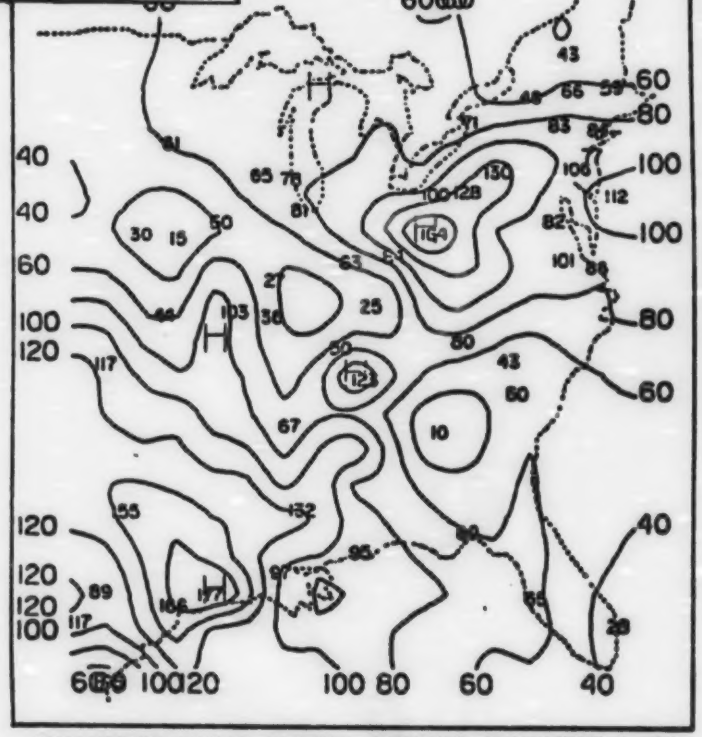
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, JULY 21, 1974


HIGH
HIGH
LOW
1012

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE


6060
43
60
80
100
100
80
60
40
40
40
60
100
120
120
120
120
100
6060
100120
100 80
60
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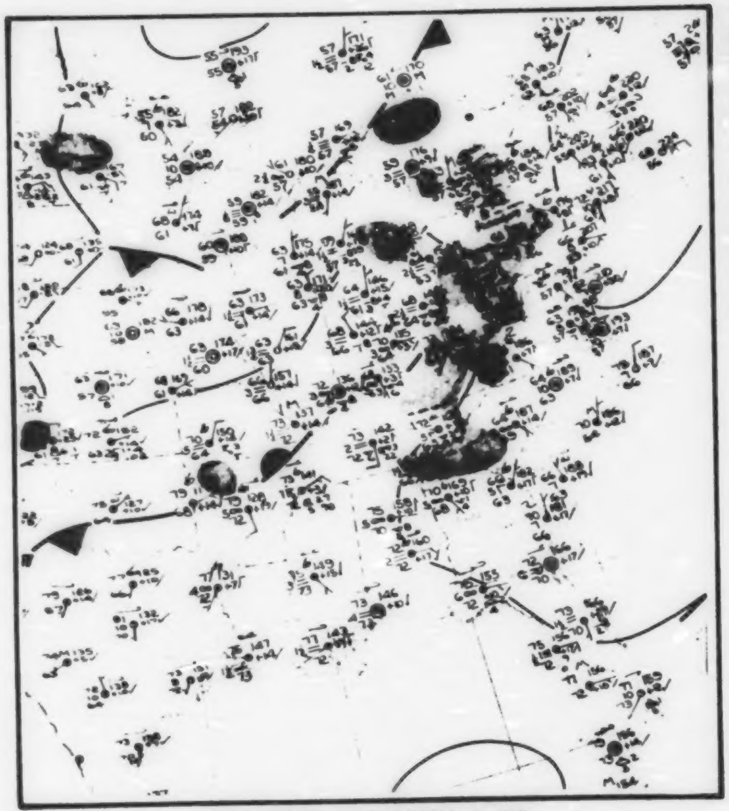
15
50
81
65
78
81
63
130
100
128
164
106
112
82
101
88
83
86
71
48
65
59
27
25
36
103
44
117
50
123
50
43
60
10
67
132
55
89
117
166
177
97
95
60
65
28
H
H
H

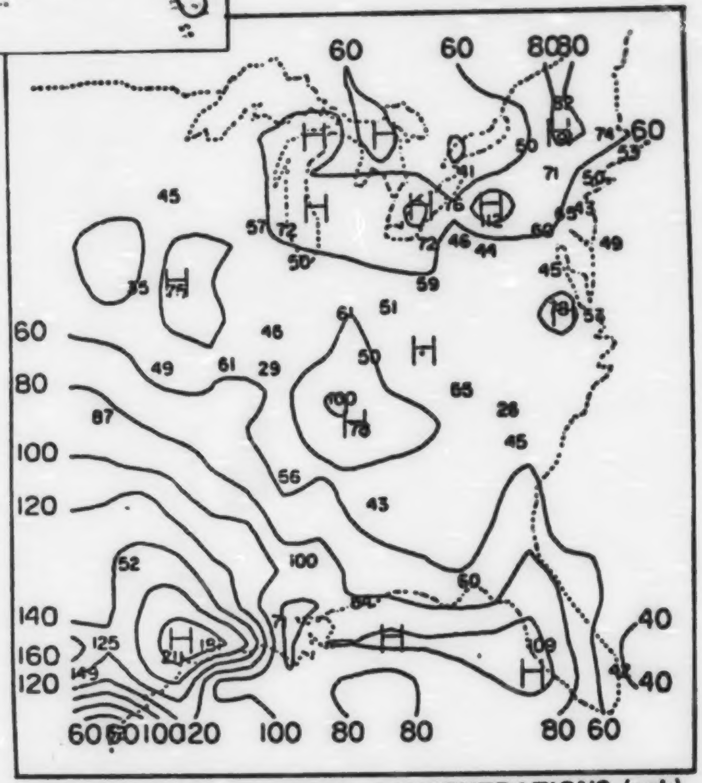
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, JULY 22, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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60
8080
60
60
80
100
120
140
160
120
60
60
100
20
100
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80
80
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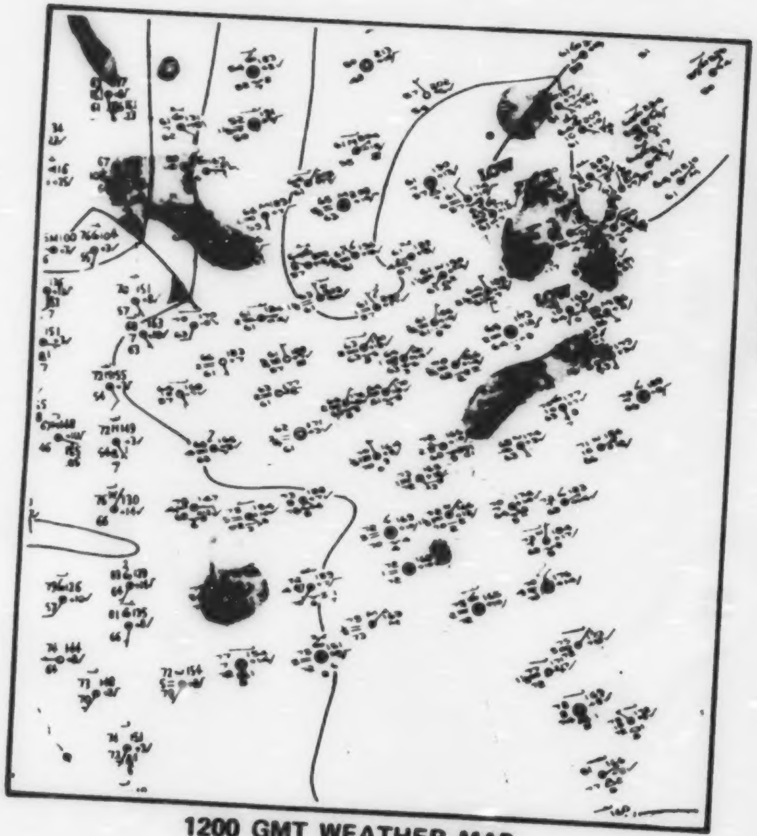
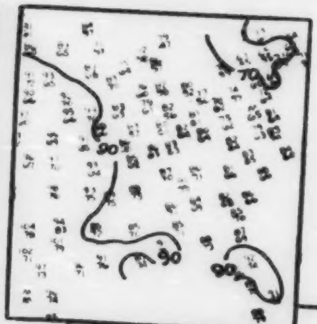
45
35
75
57
72
50
59
61
51
46
49
61
29
50
100
75
55
26
45
87
56
43
52
100
125
149
211
191
71
84
60
109
112
76
72
46
44
71
50
60
45
49
53
74
41
18

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

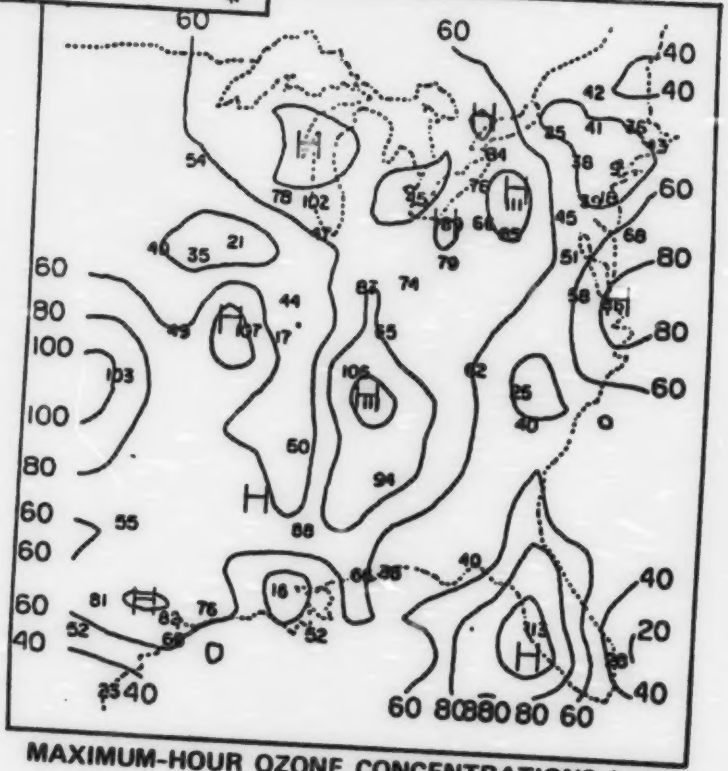
TUESDAY, JULY 23, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE


60
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60 80 80 80 80 60
40
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60
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40
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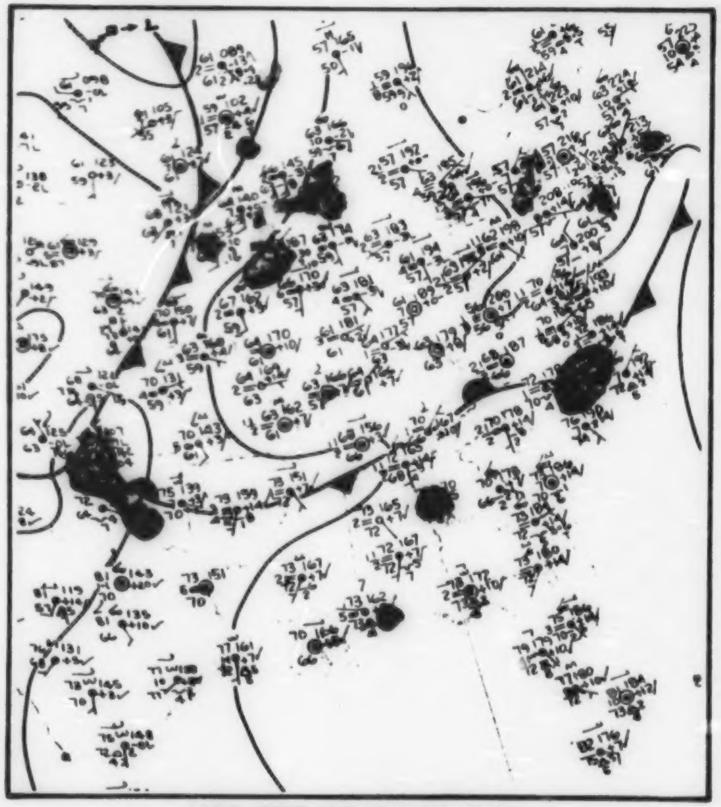
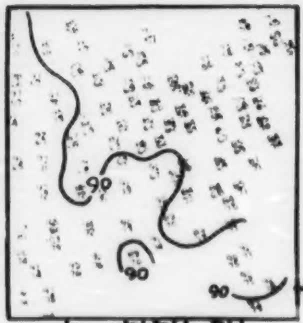
H
D

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

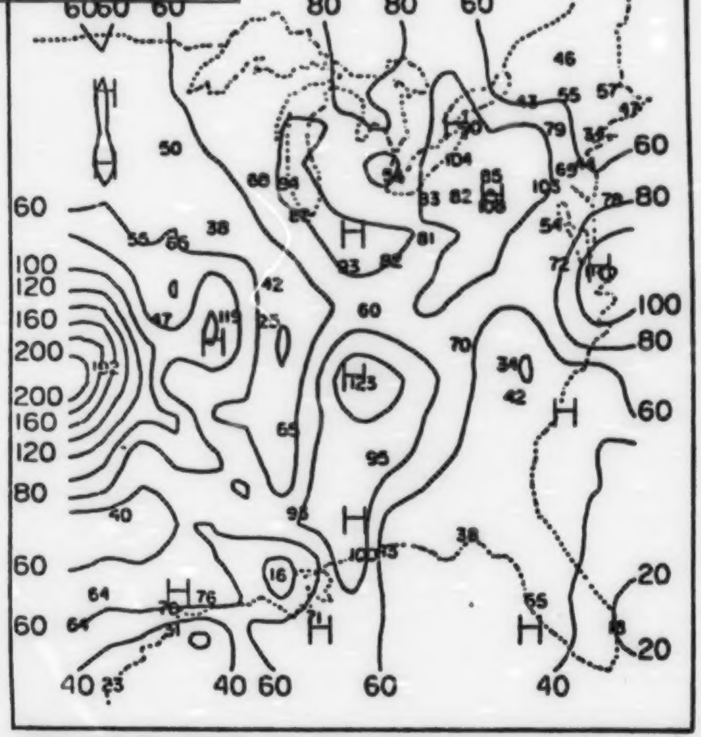
WEDNESDAY, JULY 24, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE


60
60
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120
160
200
200
160
120
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100
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60
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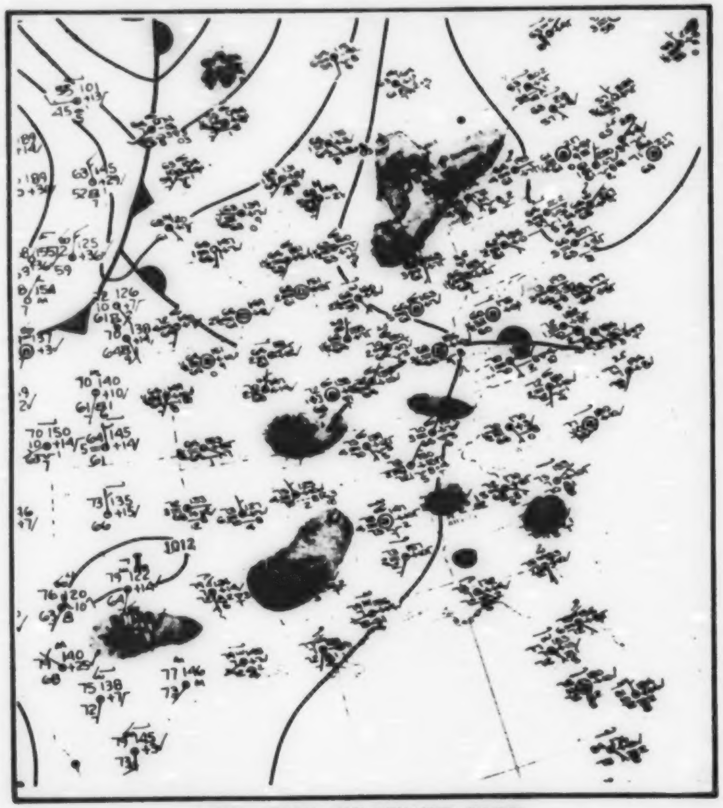
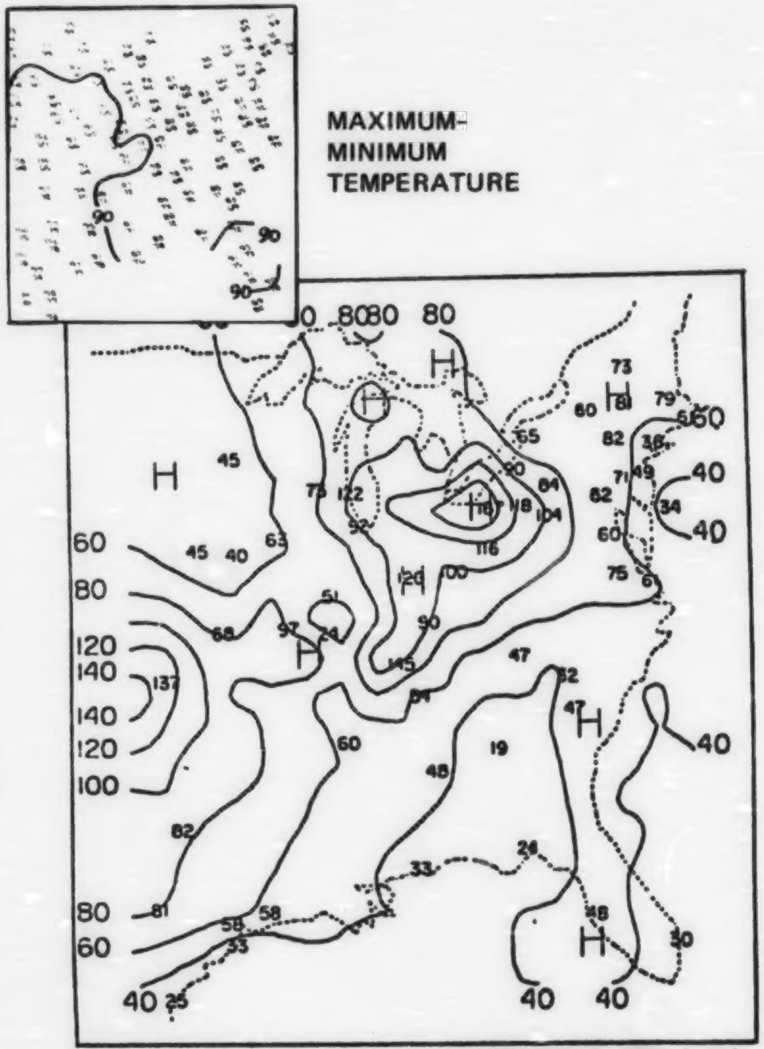
H

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, JULY 25, 1974



1200 GMT WEATHER MAP


90
90
90
H
H
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H
H
H
H
60
80
120
140
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120
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40
40
40
80
80
60
137
118
116
104
100
120
122
145
45
45
40
63
68
97
51
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47
32
47
19
48
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82
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33
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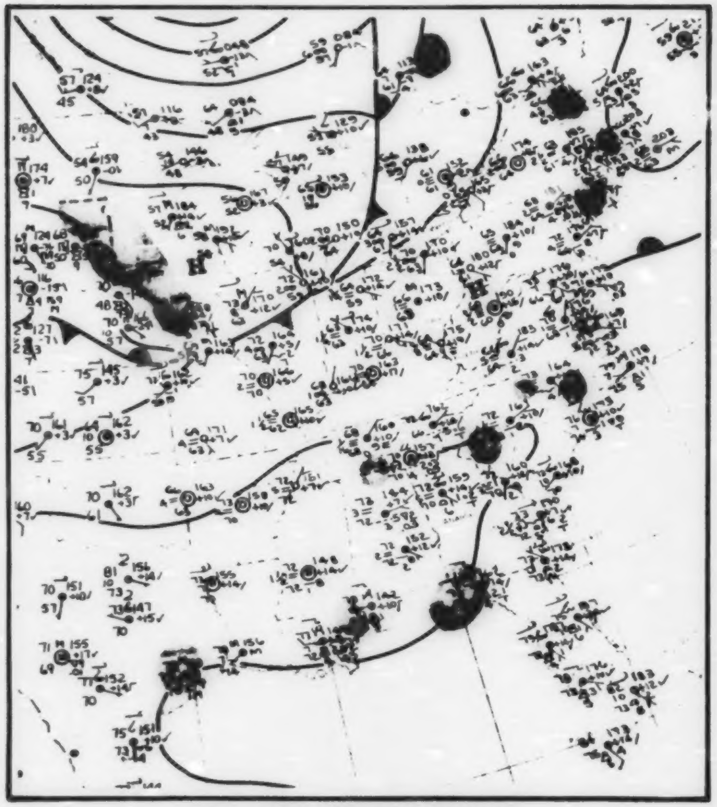
24
48
30
73
81
79
80
82
65
84
90
71
49
36
82
60
75
61
34
73
92

MAXIMUM-MINIMUM TEMPERATURE

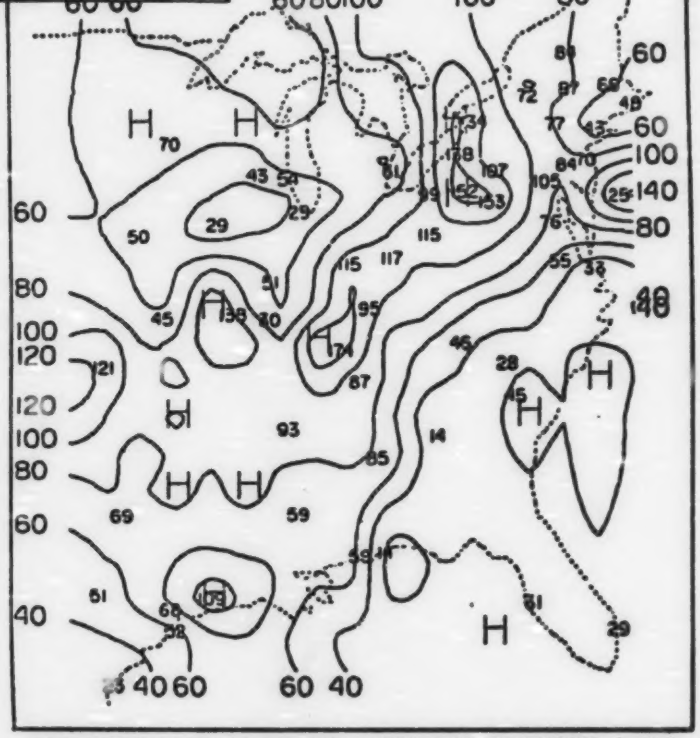
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, JULY 26, 1974



1200 GMT WEATHER MAP

MAXIMUM-MINIMUM TEMPERATURE


60
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100
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60
60
100
140
80
H
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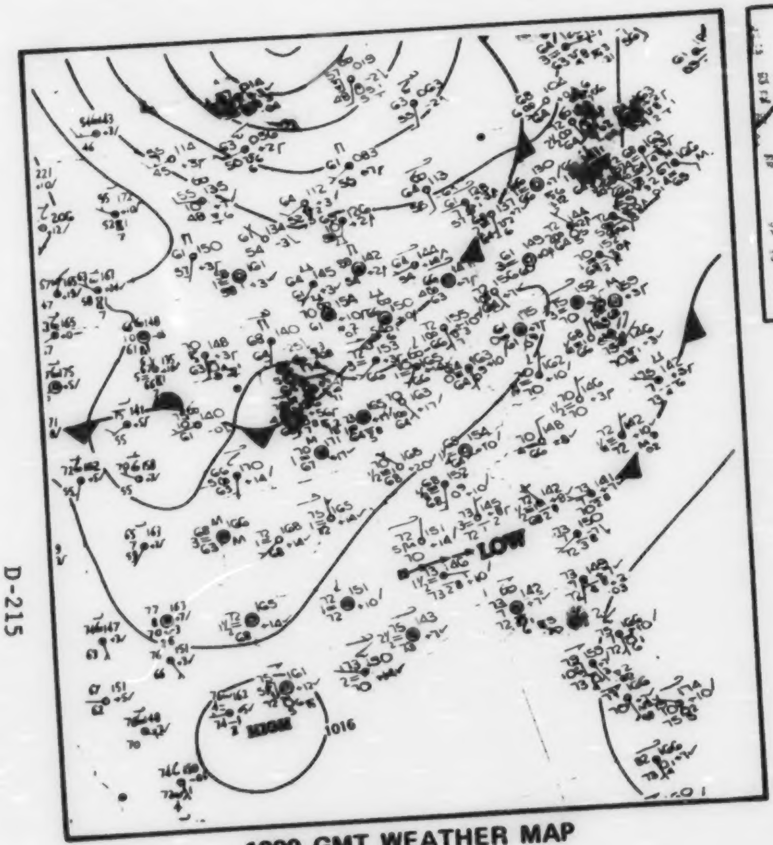
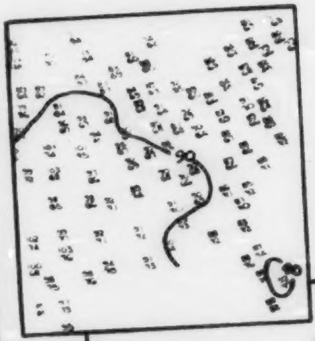
H
H
H
H

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

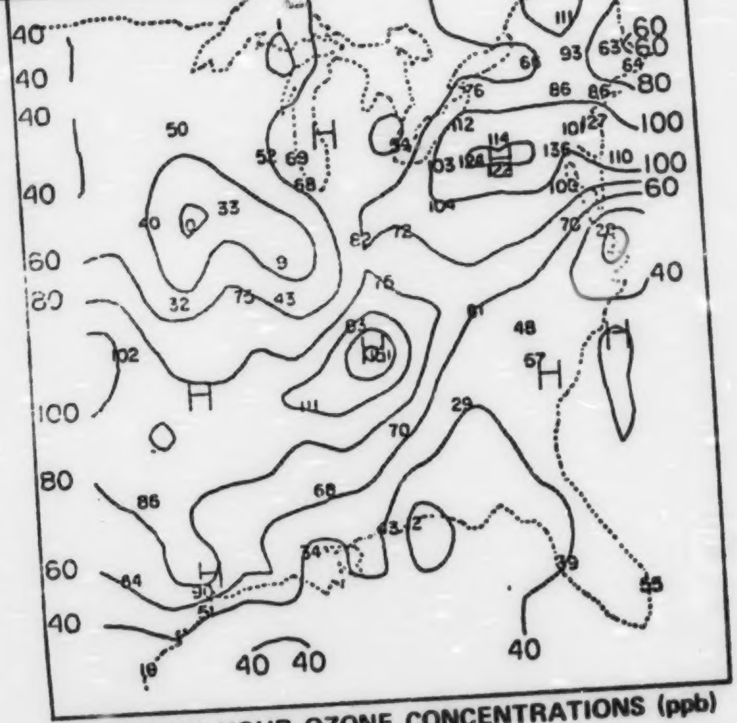
SATURDAY, JULY 27, 1974


LOW
HIGH
1016

## 1200 GMT WEATHER MAP



## MAXIMUM-MINIMUM TEMPERATURE


40
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131
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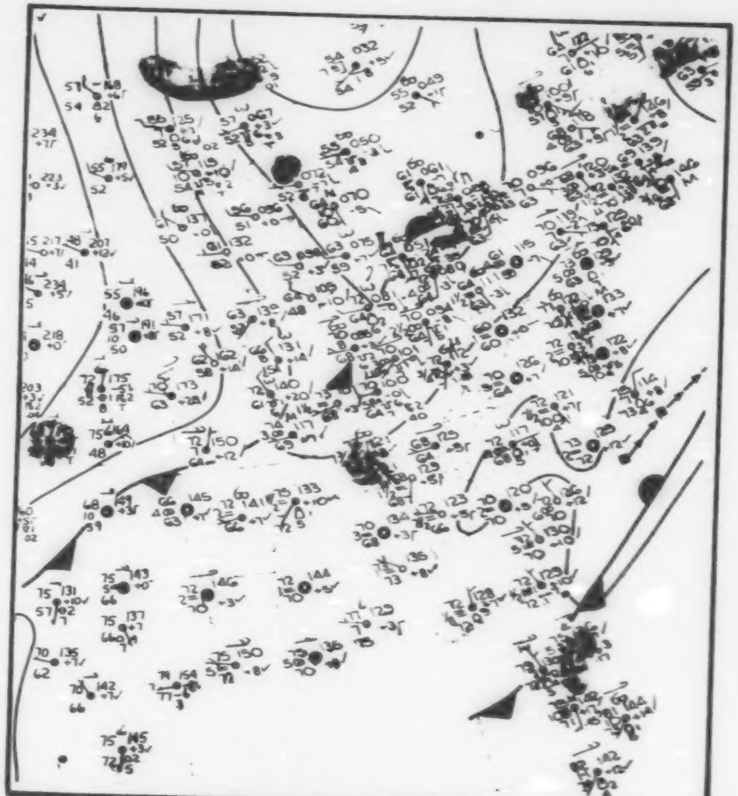
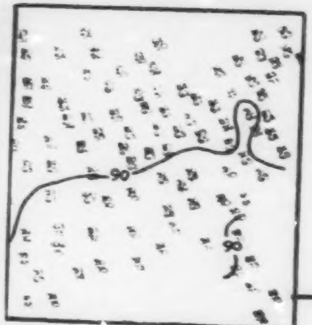
19
H

## MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

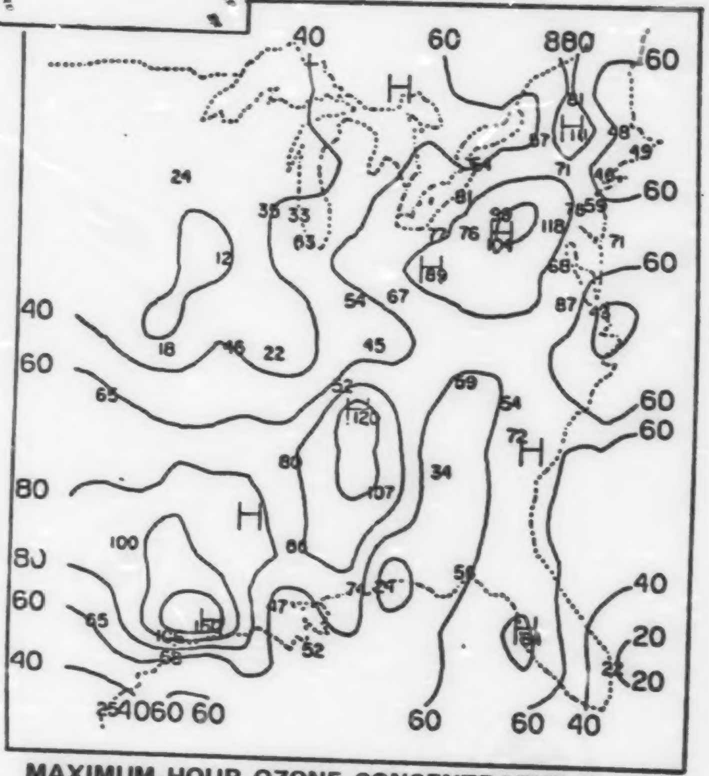
SUNDAY, JULY 28, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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63
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67
45
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52
120
107
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86
100
150
105
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65
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74
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34
72
69
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76
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104
118
89
77
81
64
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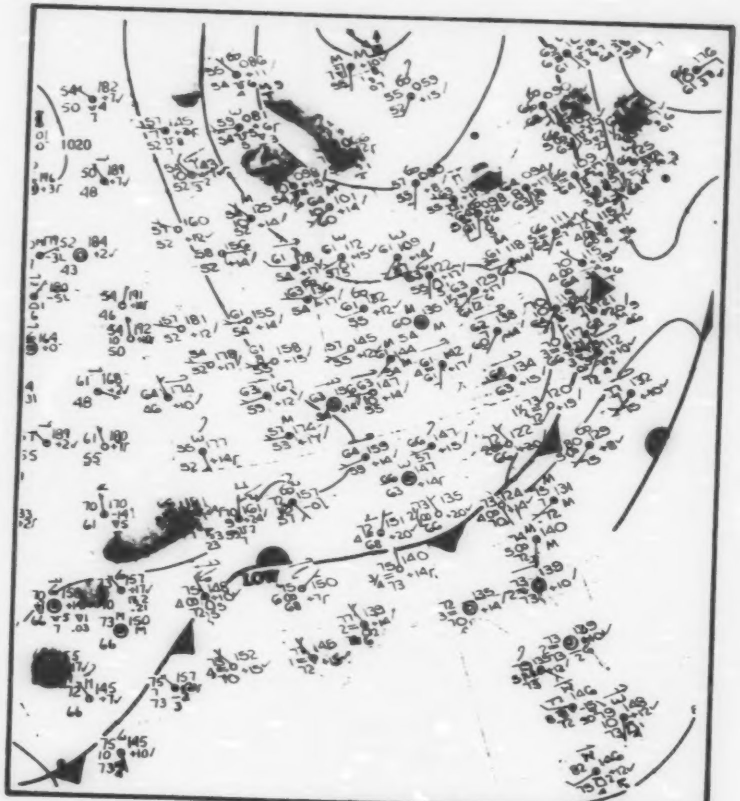
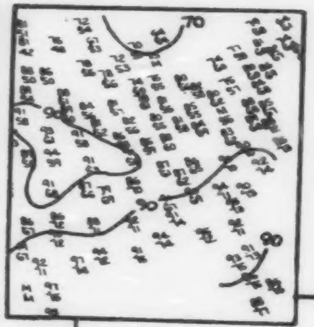
116
48
49
46
59
71
68
87
43
22
184

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

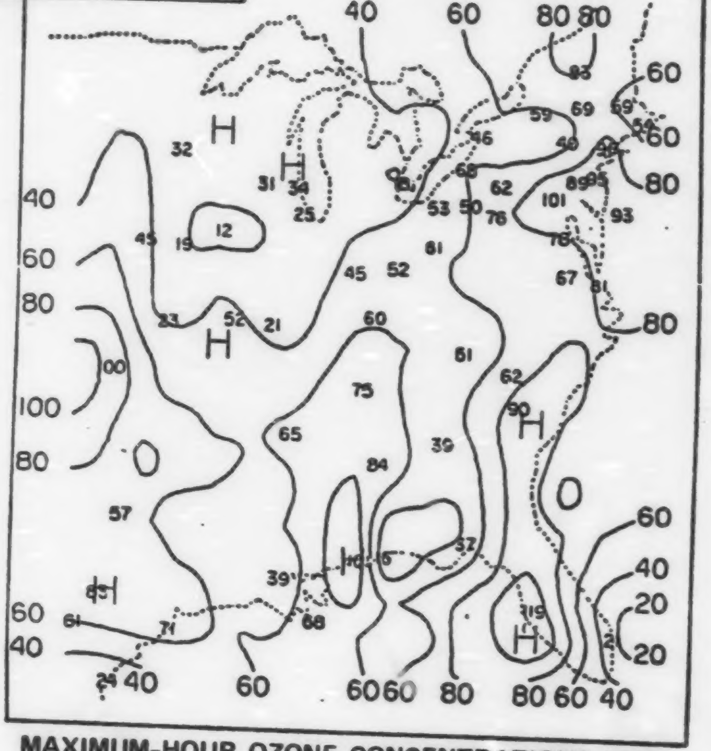
MONDAY, JULY 29, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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60
80 80
60
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100
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60 60
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80 60 40
60
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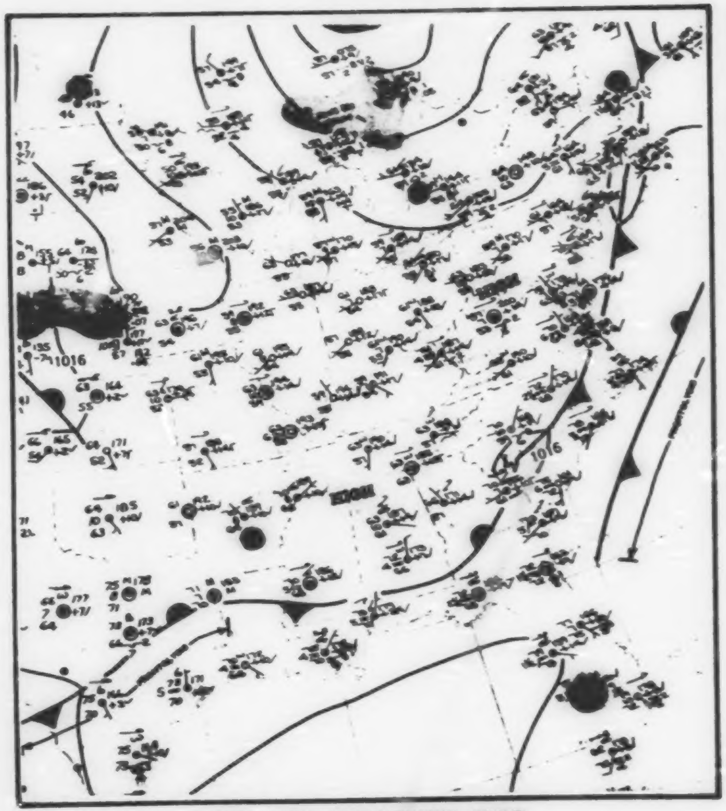
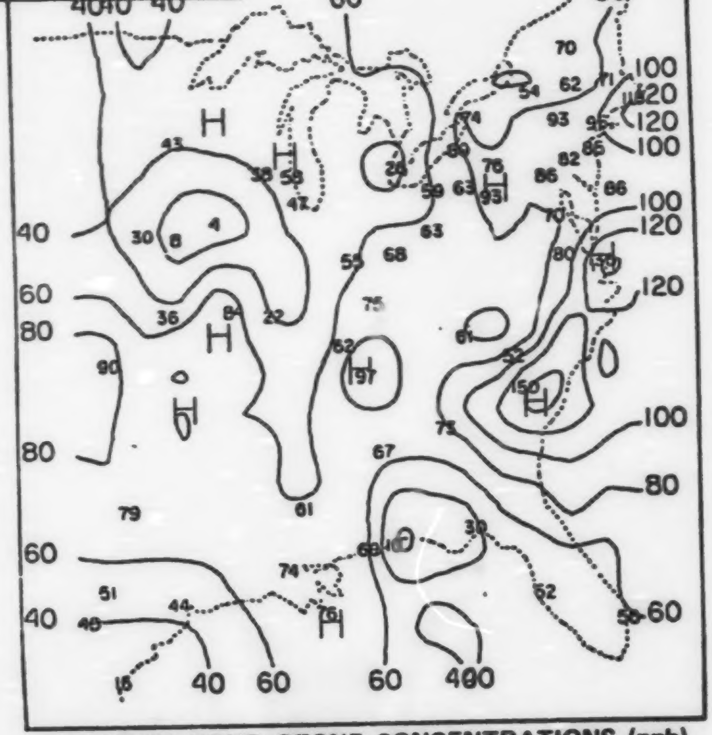
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, JULY 30, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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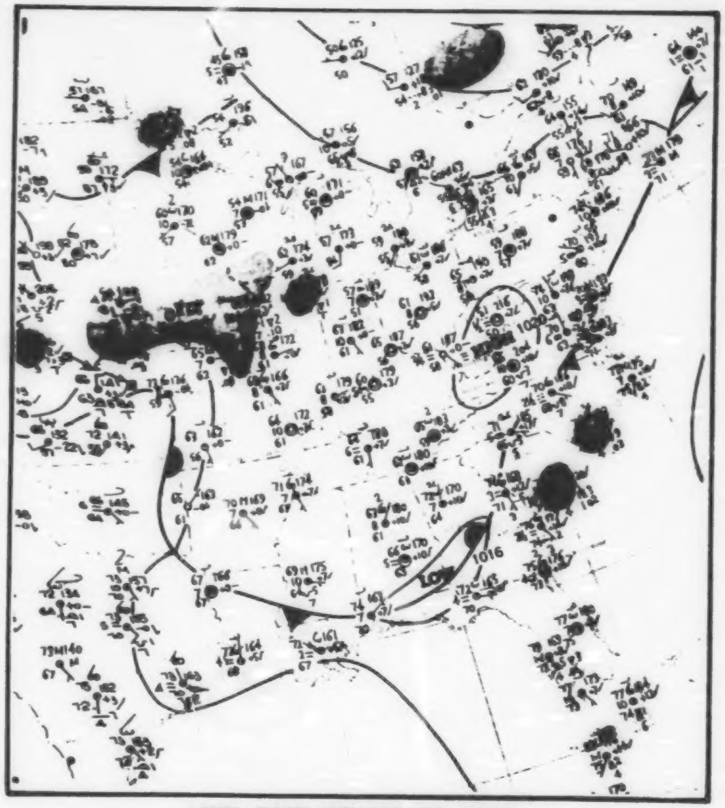
120
100
100
120
120
100
80
60
40
60
60
400
40
60
80
80
60
40
H
H
H
H
H
H
H
197
150

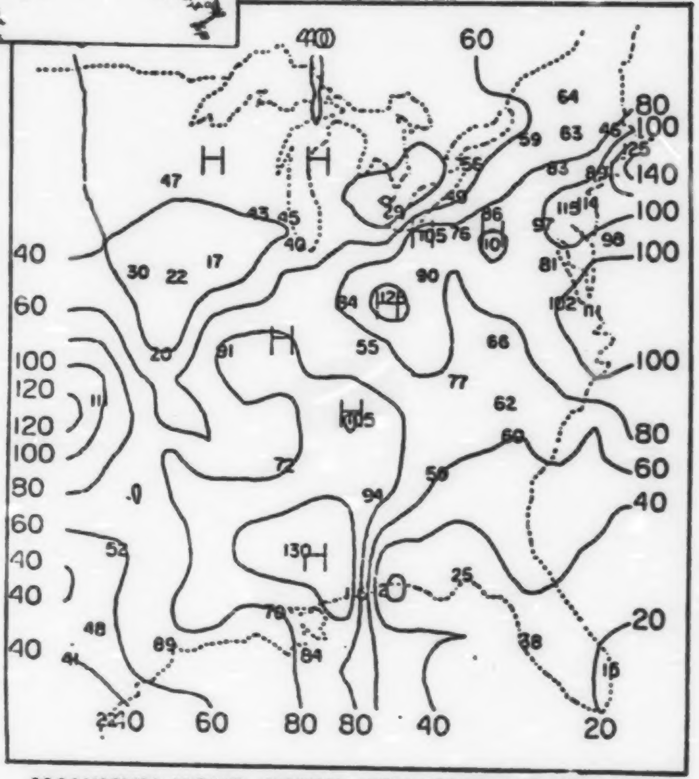
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, JULY 31, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE


60
80
100
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100
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100
80
60
40
20
20
40
80
80
60
40
40
40
60
80
100
120
120
100
60
40
H
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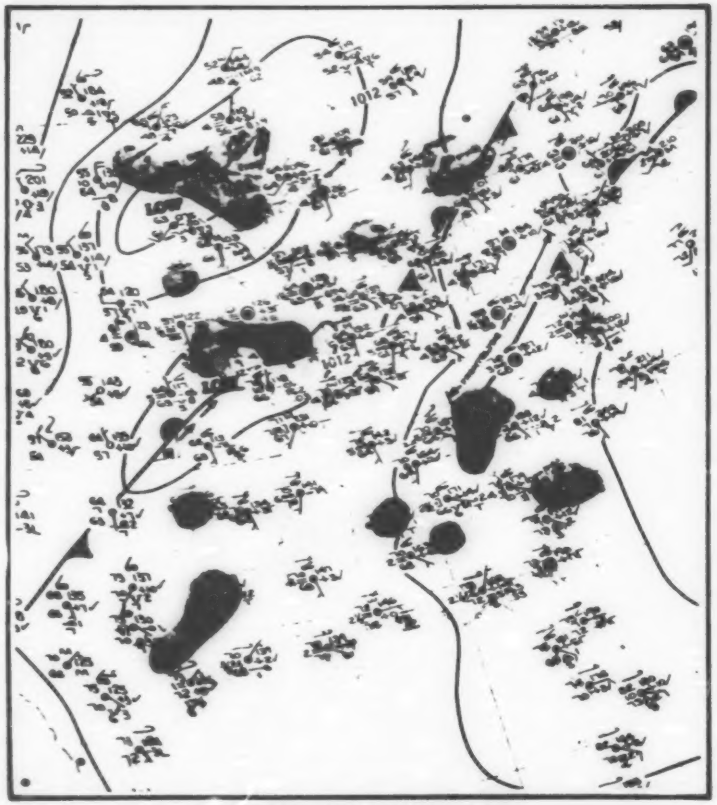
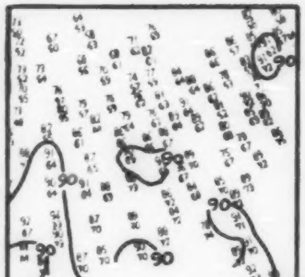
130
128
105

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

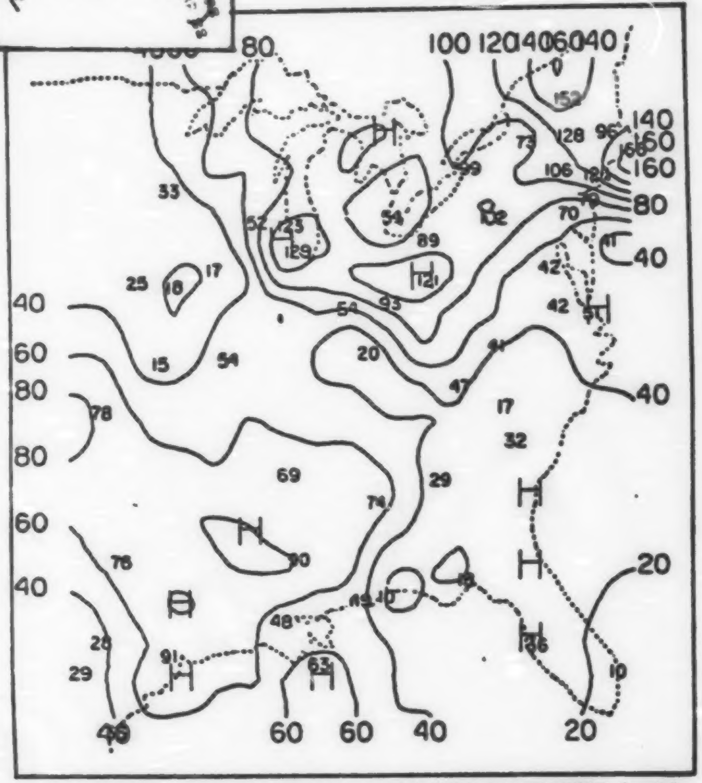
THURSDAY, AUGUST 1, 1974


LOW
1012
1012

1200 GMT WEATHER MAP


90
90
90
90
90
90

MAXIMUM-
MINIMUM
TEMPERATURE


100 120 140 160 40
80
140
160
160
80
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20
20
40
60
60
40
40
60
80
80
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40
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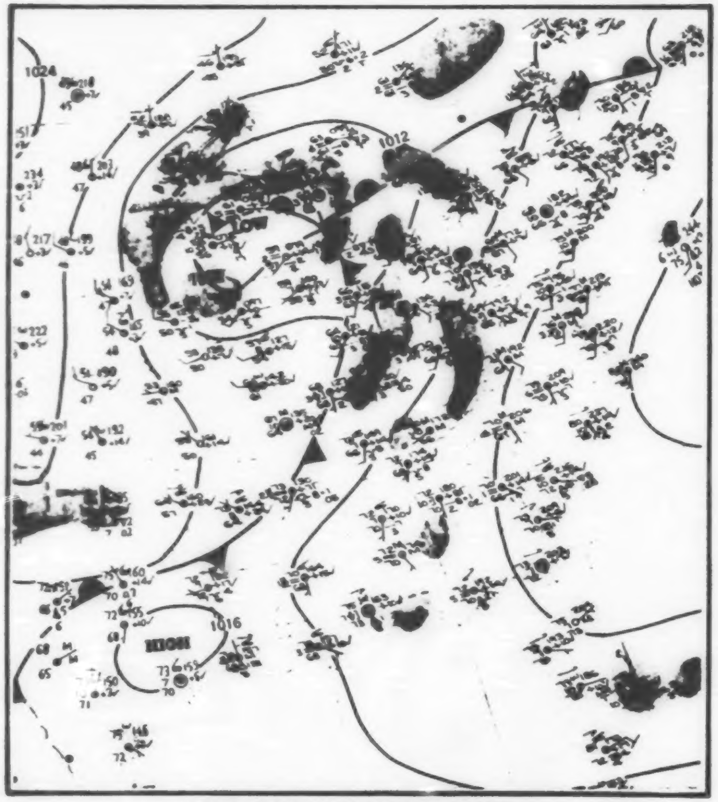
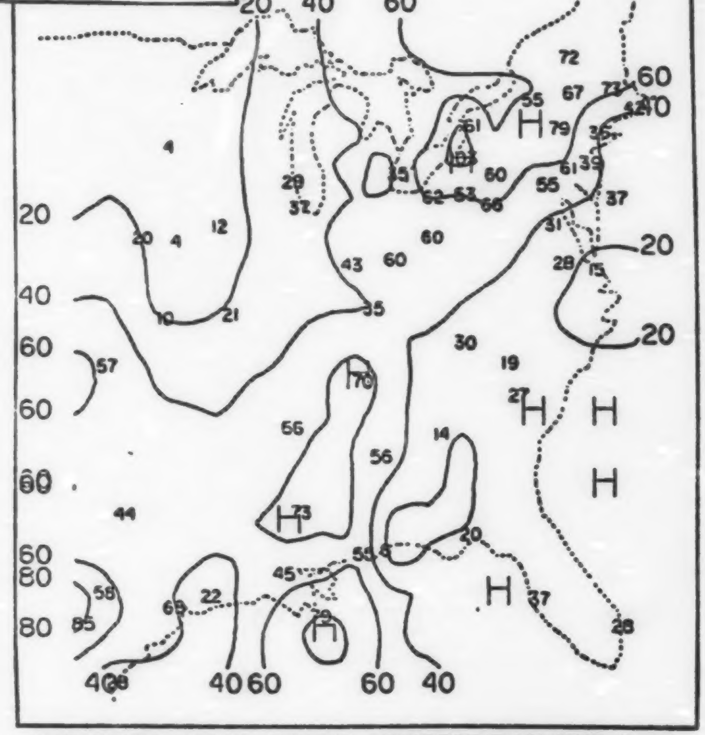
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, AUGUST 2, 1974


1024
1012
1016
LOW
HIGH

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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72
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67
73
61
79
35
103
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39
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37
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62
63
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28
15
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12
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43
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57
70
27
56
56
14
44
73
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55
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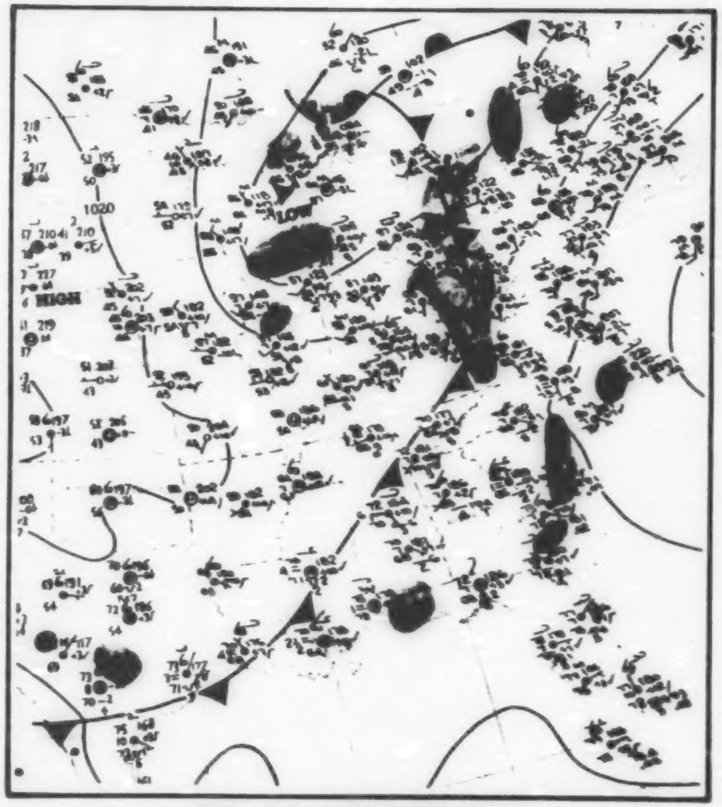
58
65
22
29
37
85
28

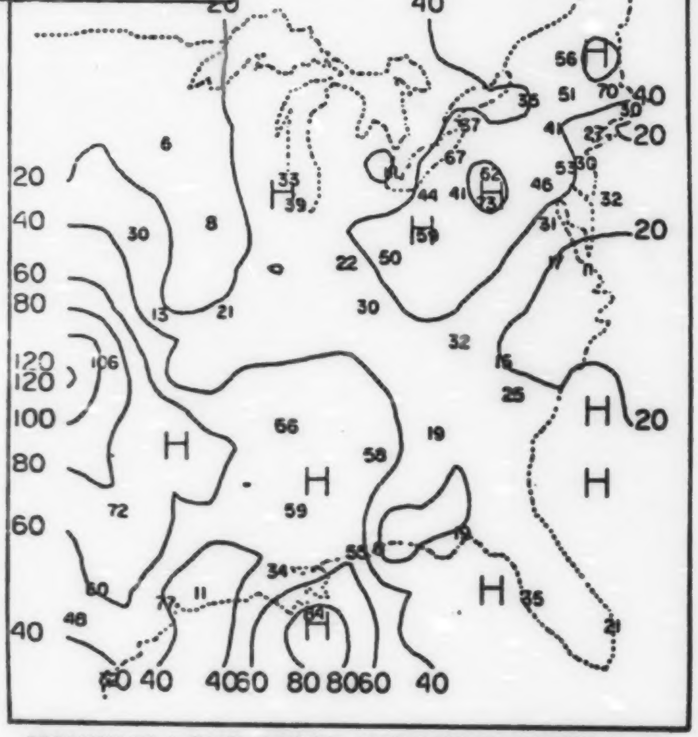
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, AUGUST 3, 1974


LOW
HIGH
1020

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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60
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80
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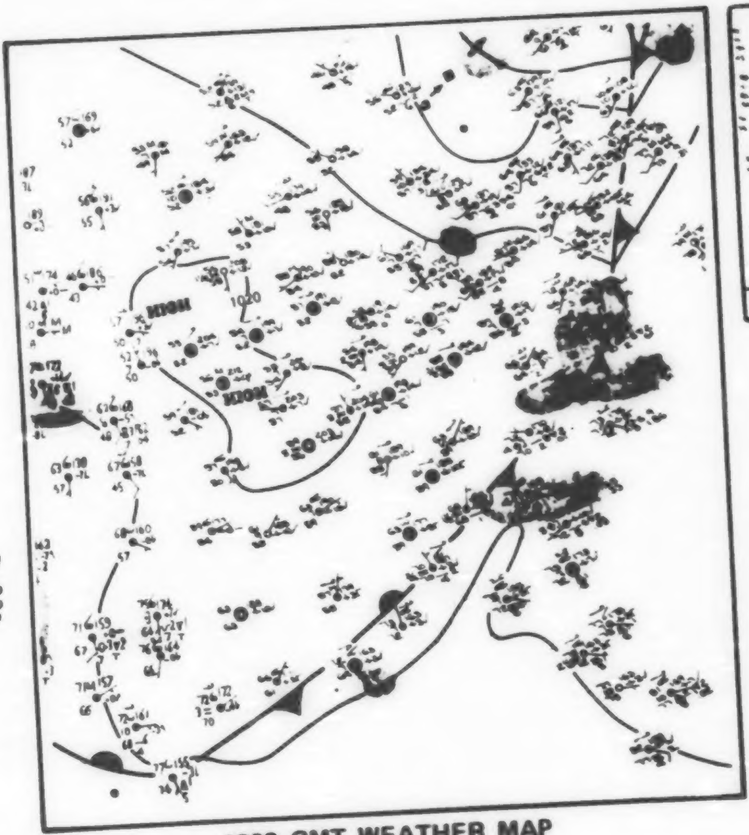
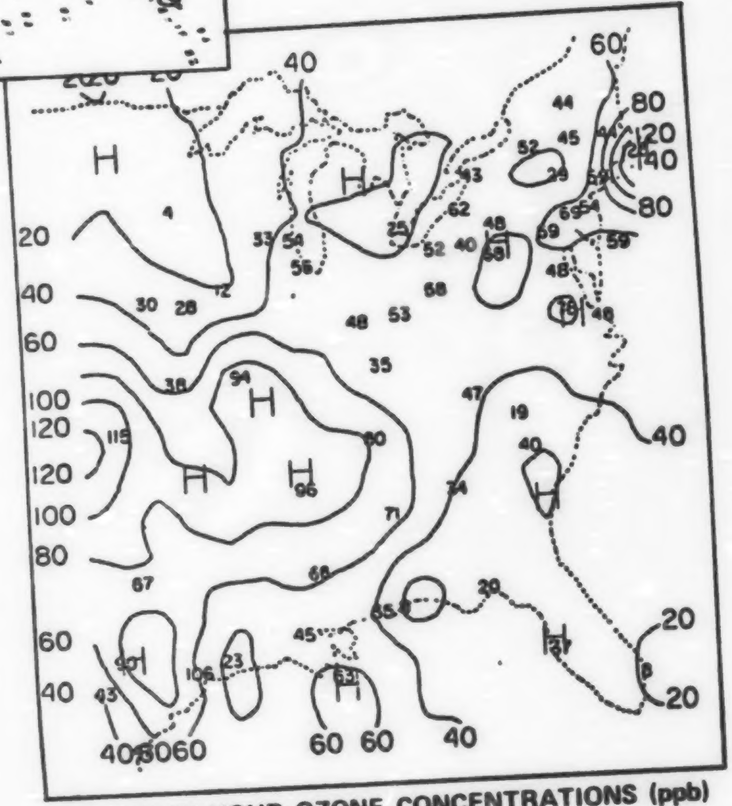
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, AUGUST 4, 1974


HIGH
1020
HIGH

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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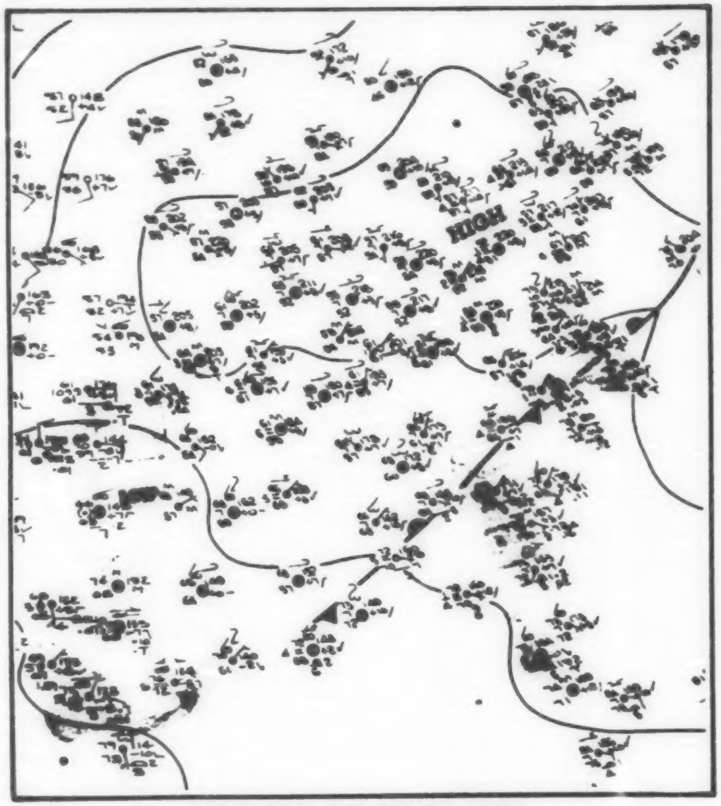
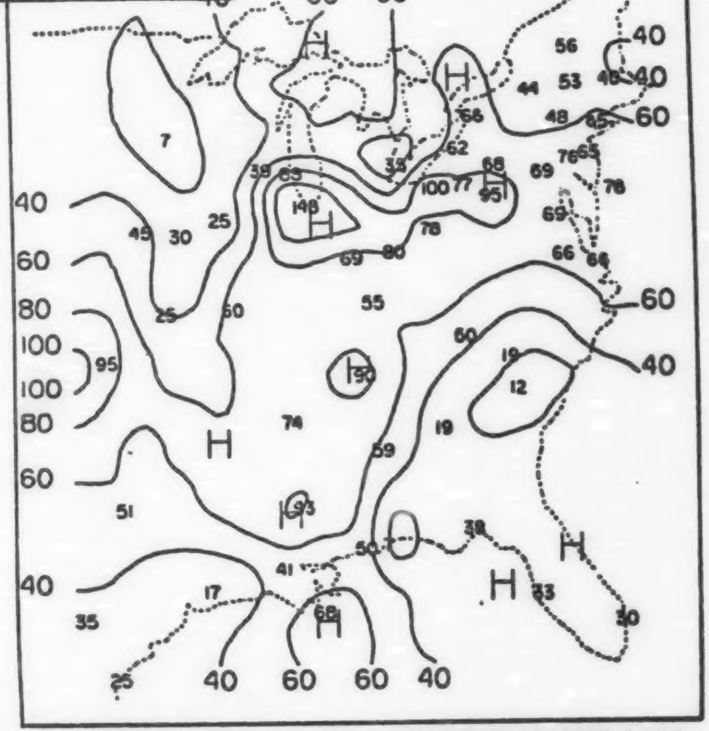
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, AUGUST 5, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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80
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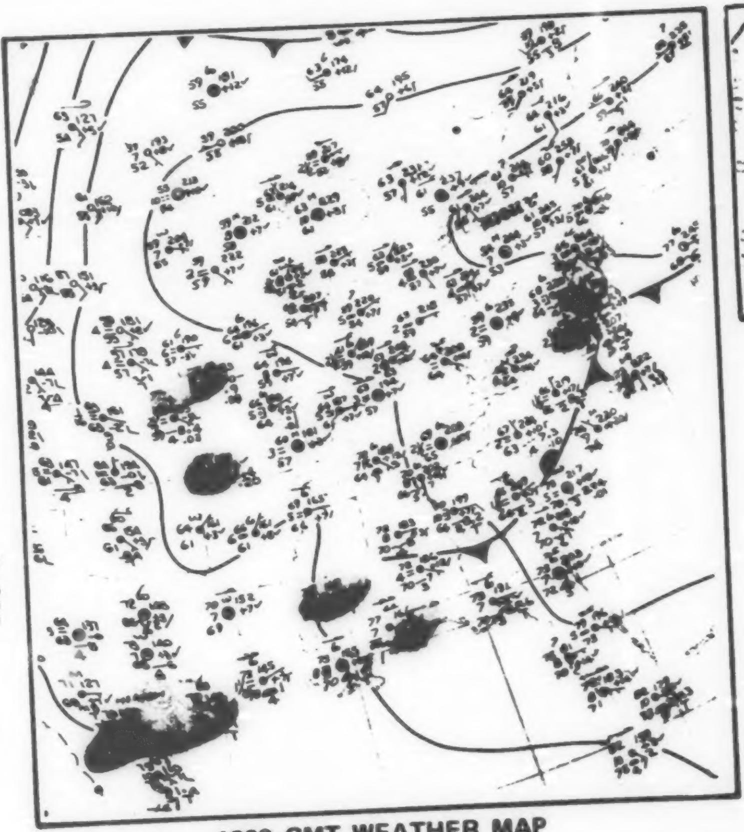
7
95
51
35
25
17
74
55

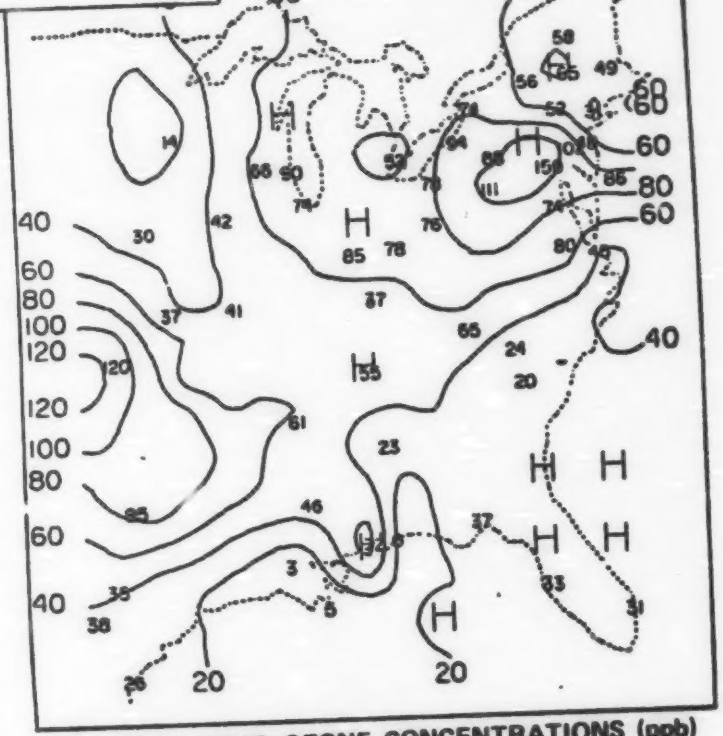
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, AUGUST 6, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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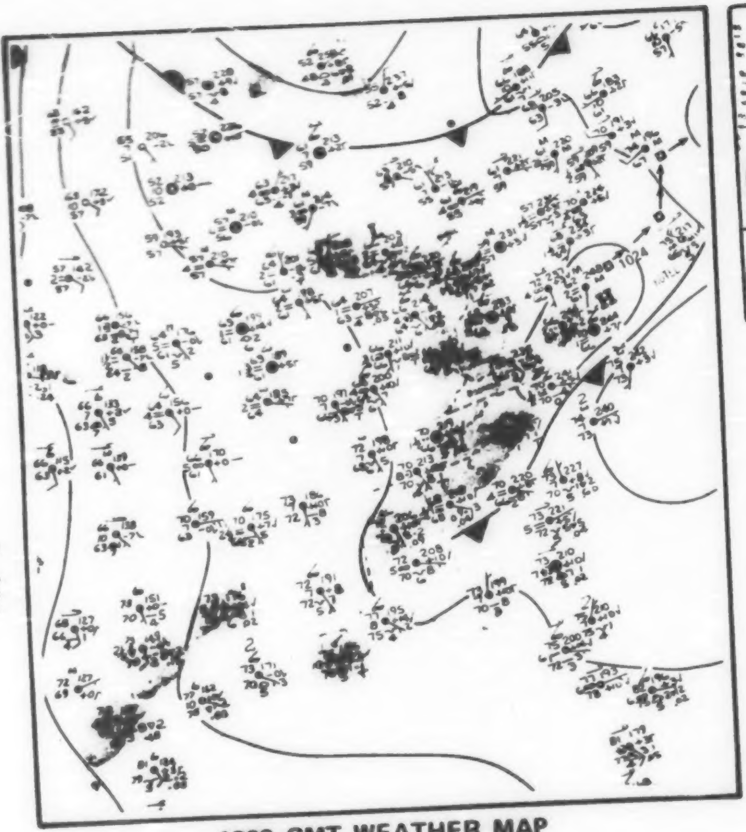
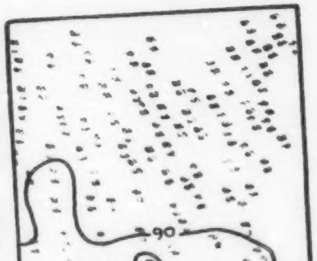
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

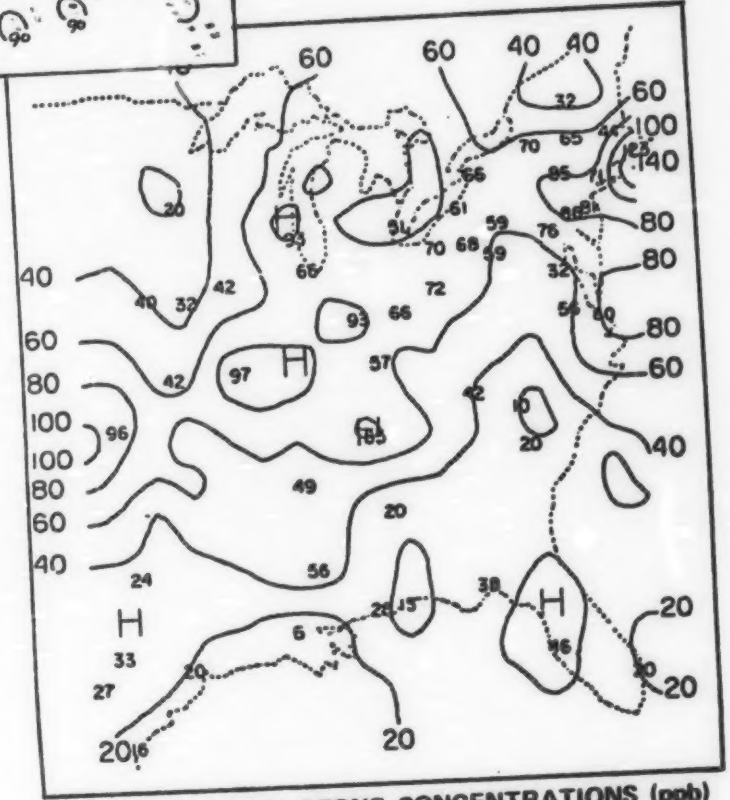
WEDNESDAY, AUGUST 7, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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32
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65
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85
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76
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68
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42
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32
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72
93
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97
57
42
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96
105
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33
27
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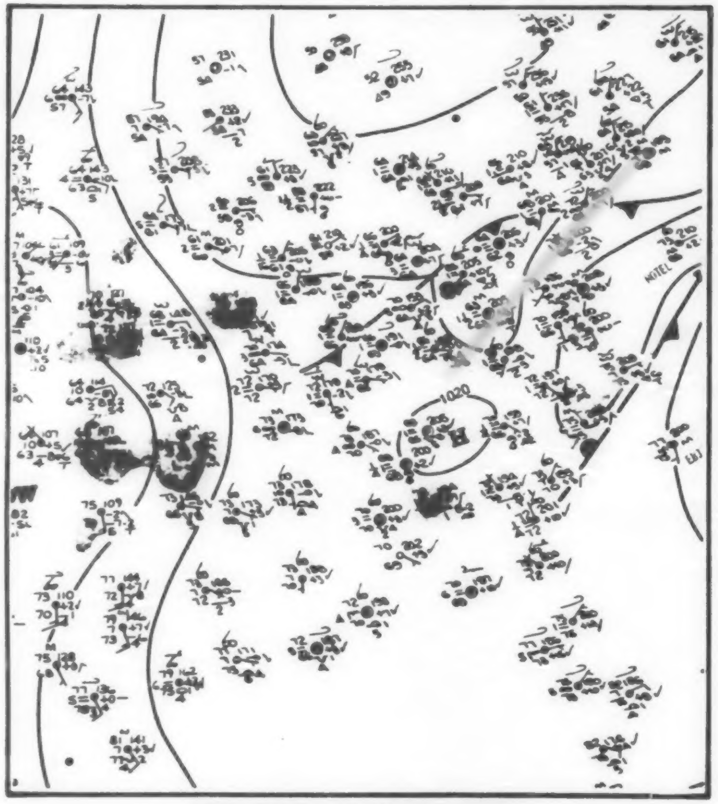
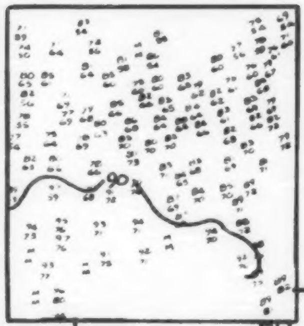
16
20
6
20
15
38
96

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

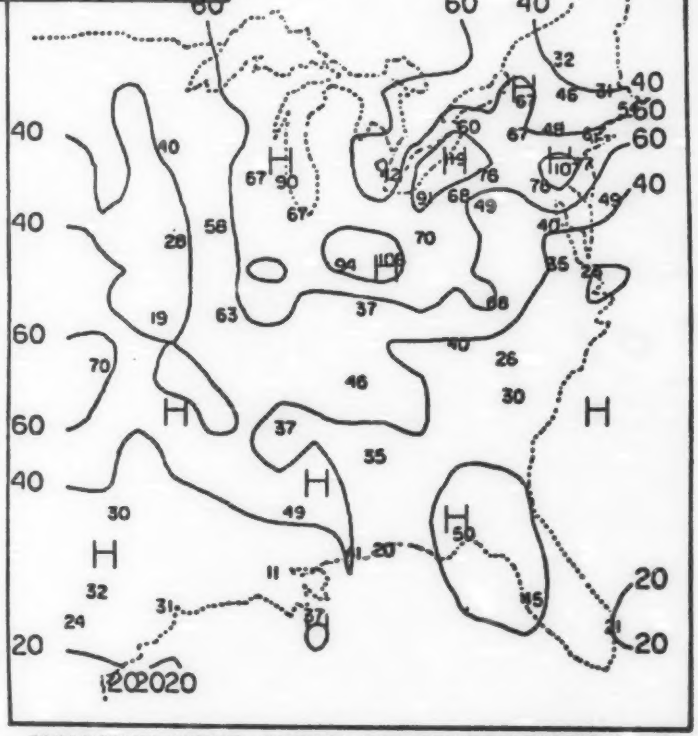
THURSDAY, AUGUST 8, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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90
67
94
106
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88
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31
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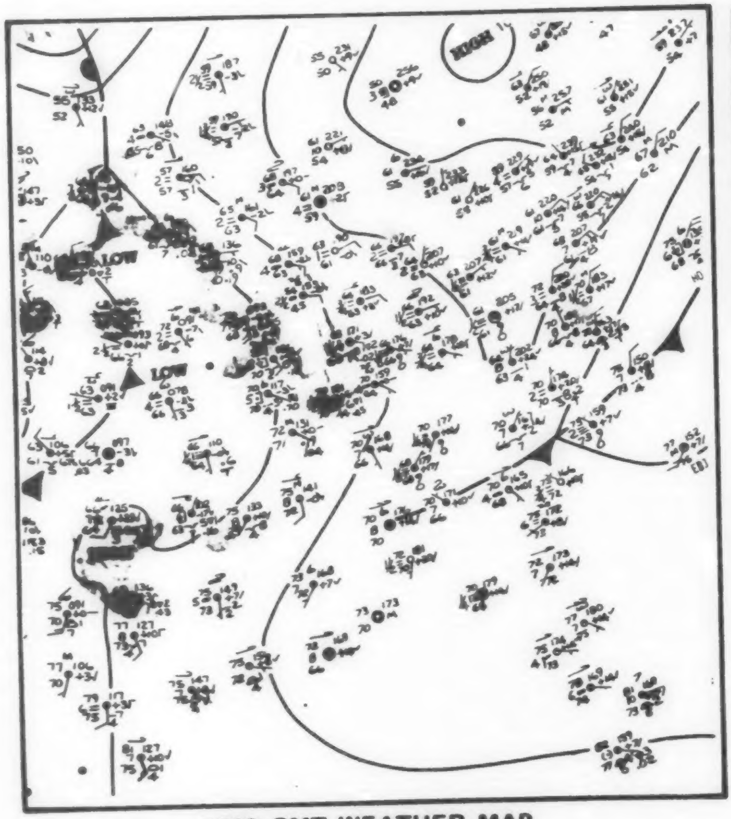
50
85
21
25

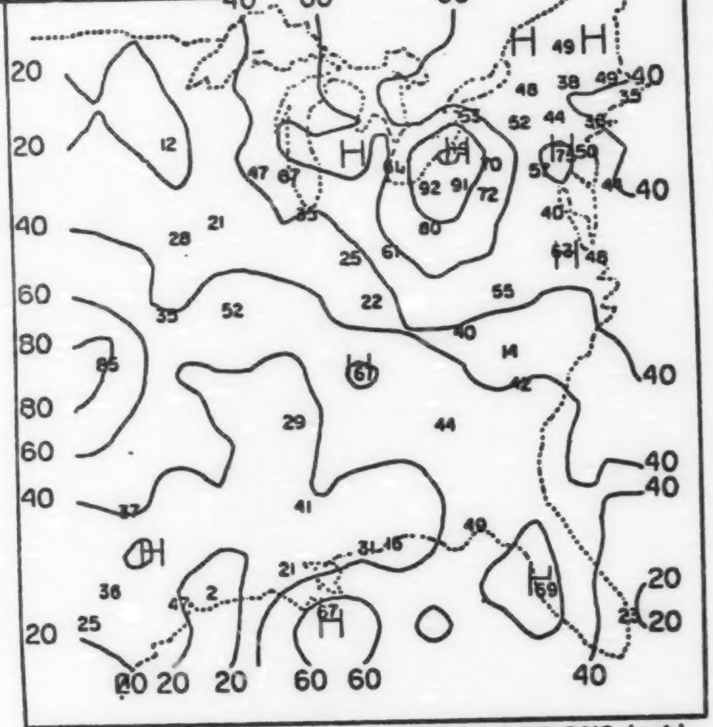
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, AUGUST 9, 1974


HIGH
LOW
LOW

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE


40
60
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49
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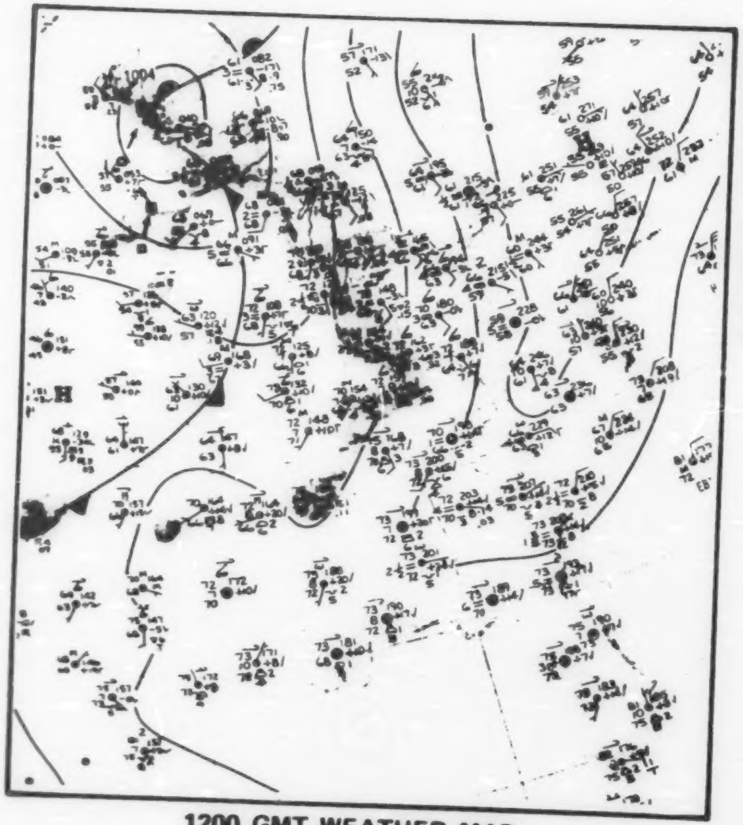
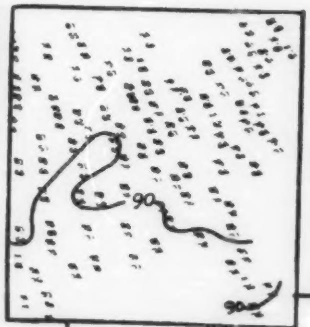
20
20
60
60

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

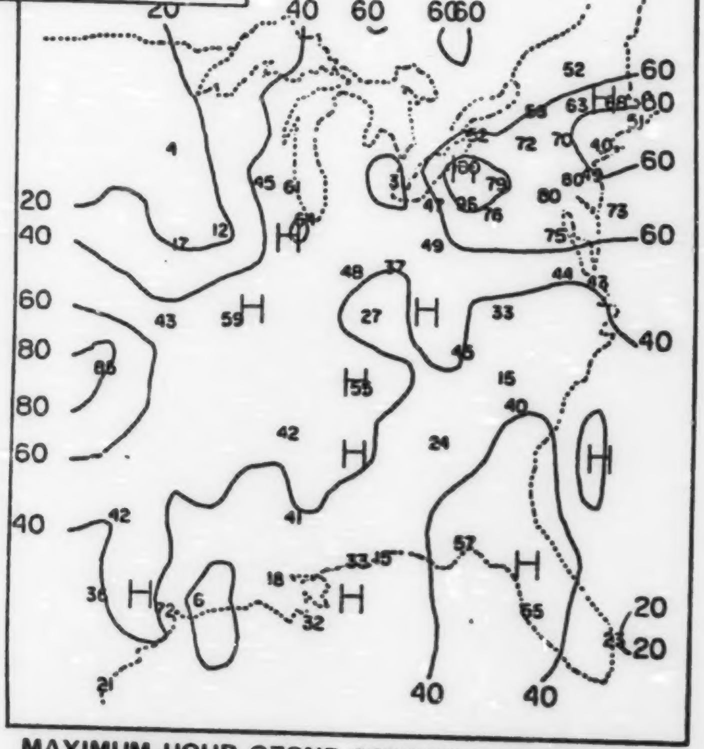
SATURDAY, AUGUST 10, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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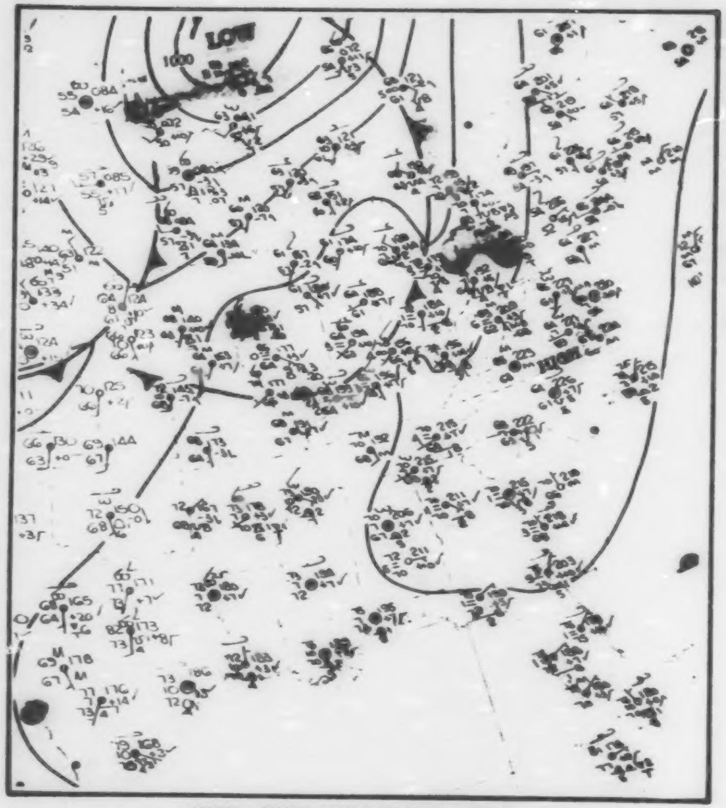
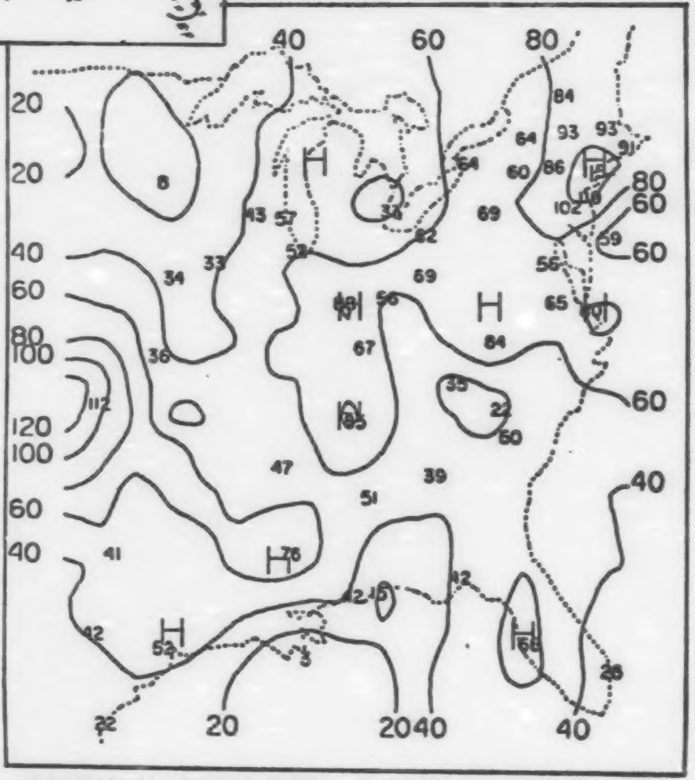
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, AUGUST 11, 1974


LOW
1000
HIGH

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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120
100
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60
60
40
20
2040
40
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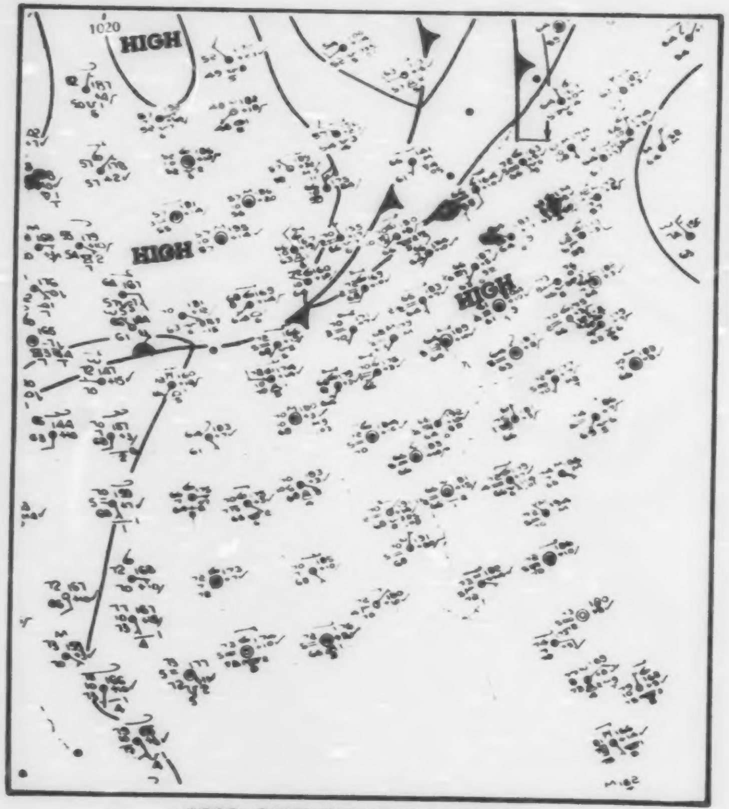
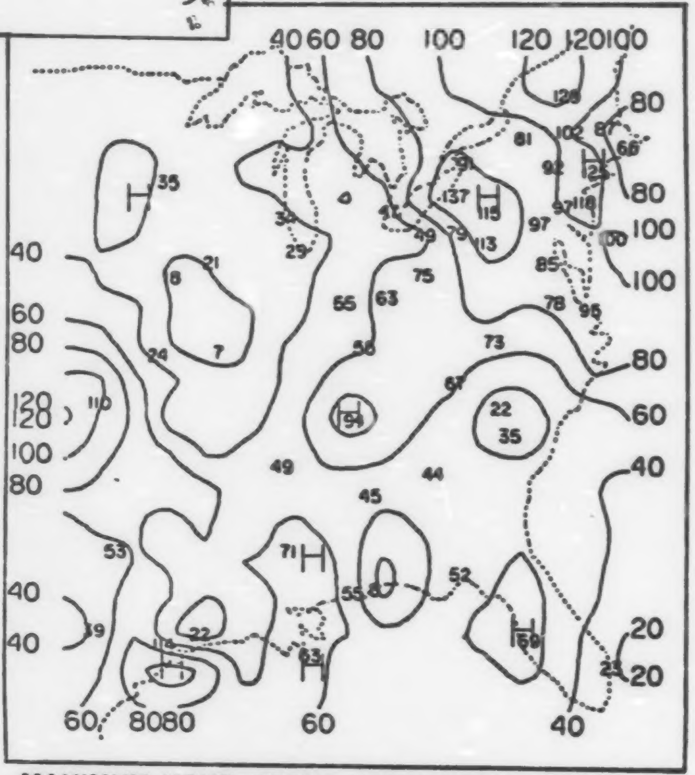
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, AUGUST 12, 1974


1020
HIGH
HIGH
HIGH

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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75
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79
113
137
115
81
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97
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73
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67
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35
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44
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71
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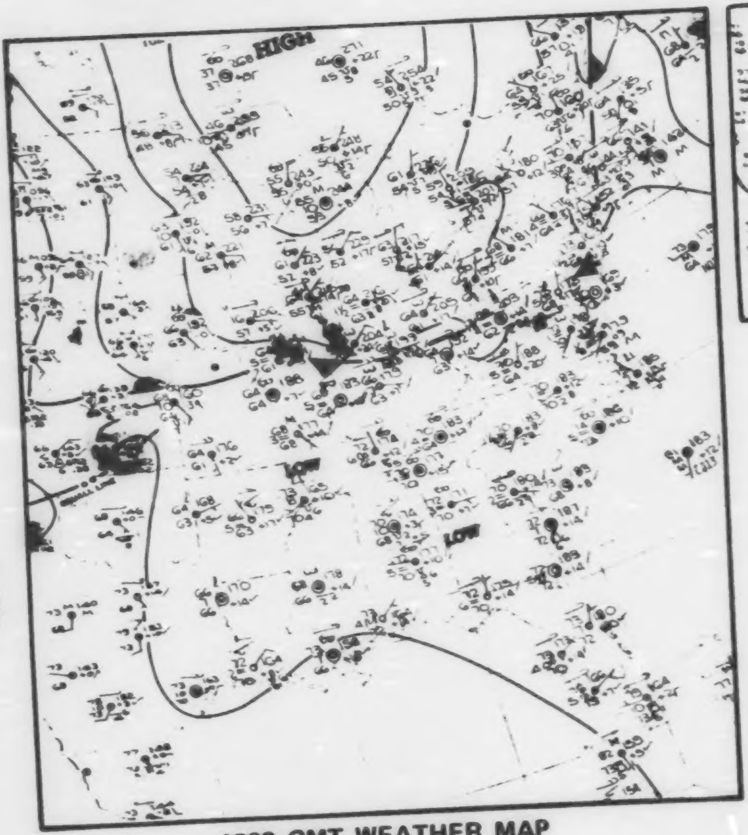
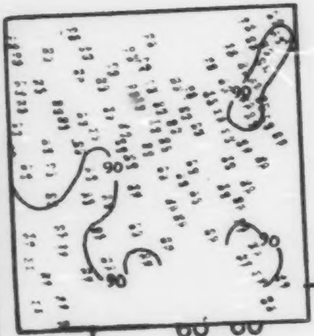
87
52
59
63
22
115
19
23

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

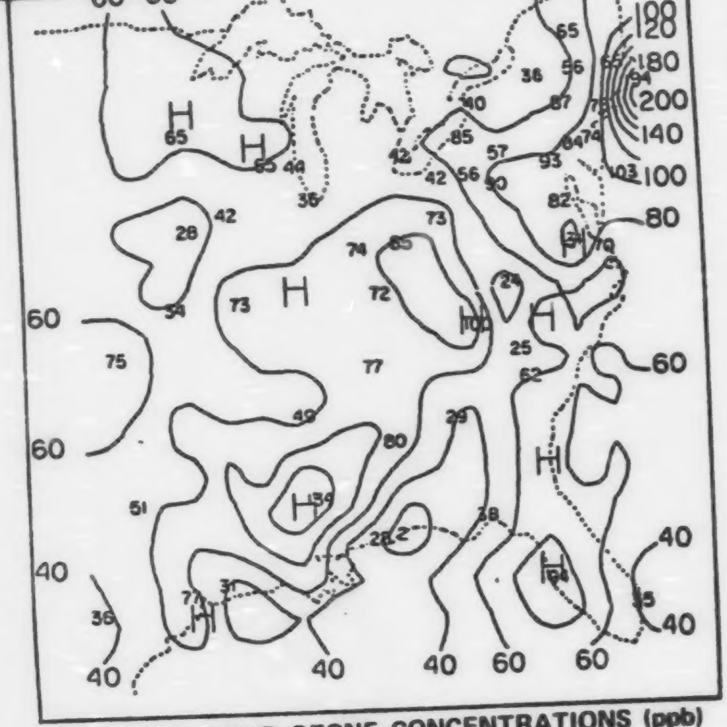
TUESDAY, AUGUST 13, 1974


HIGH
LOW
LOW

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE


H
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200
180
140
120
100
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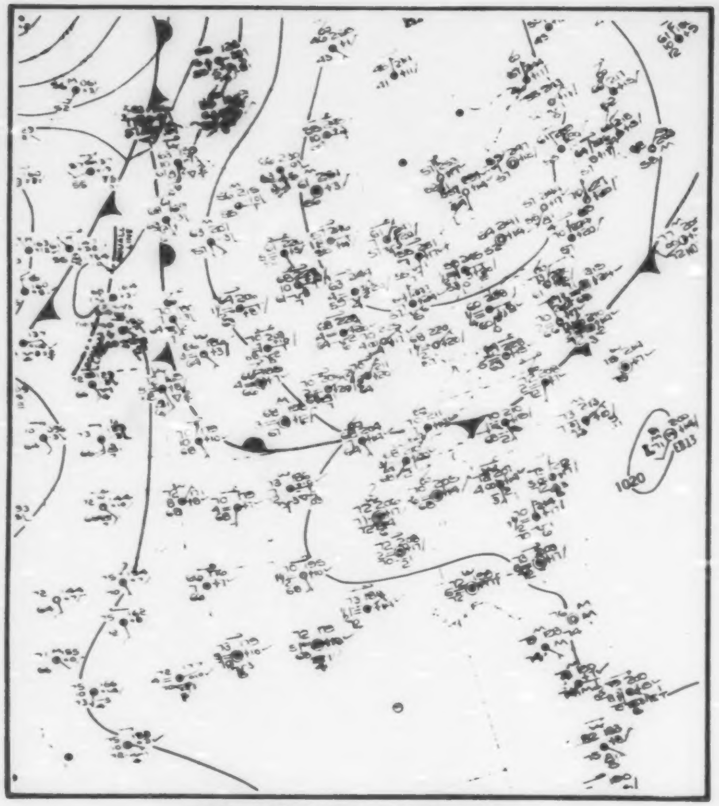
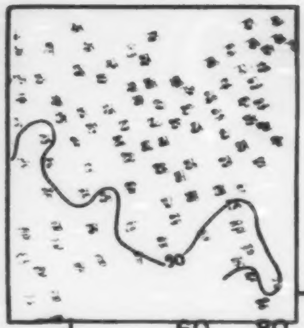
60
40

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

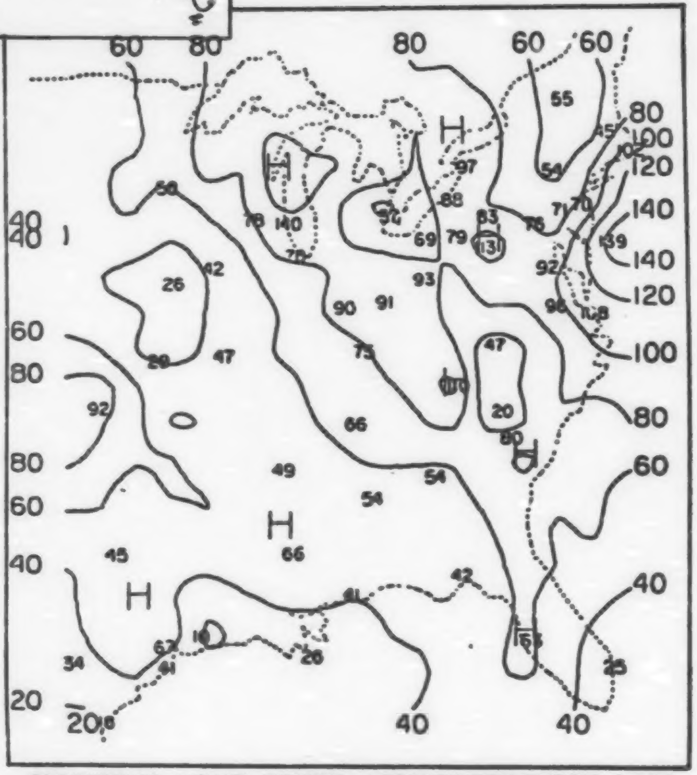
WEDNESDAY, AUGUST 14, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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100
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80
60
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40
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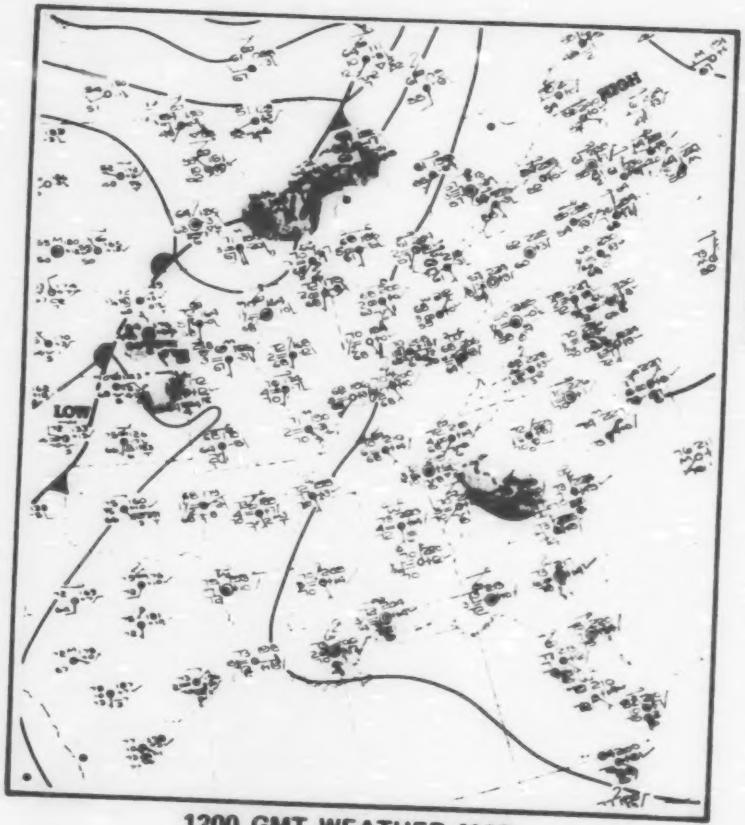
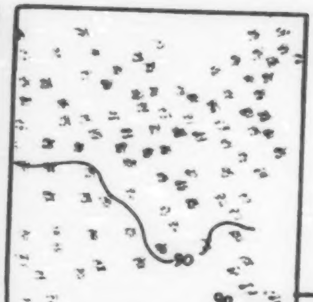
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

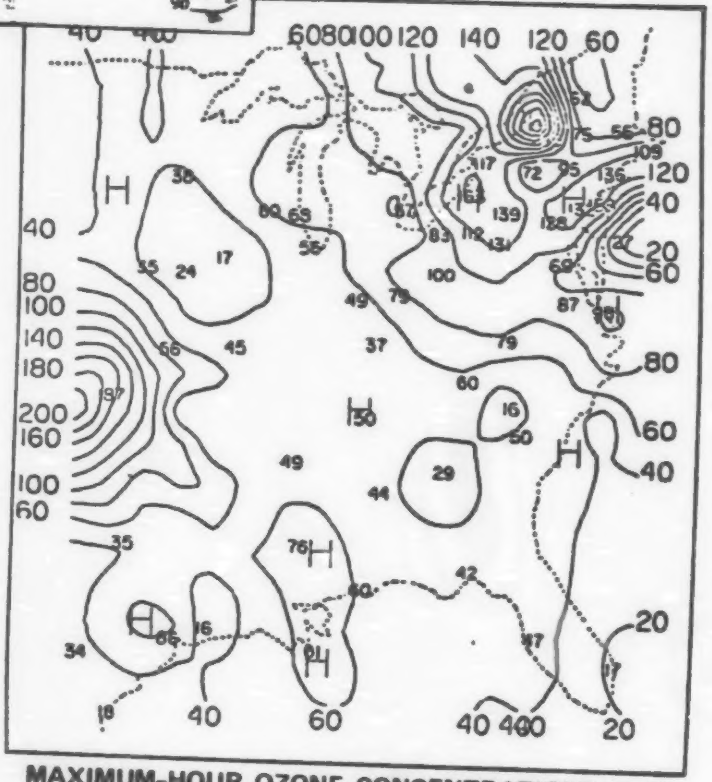
THURSDAY, AUGUST 15, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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109
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100
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H
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197
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24
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76
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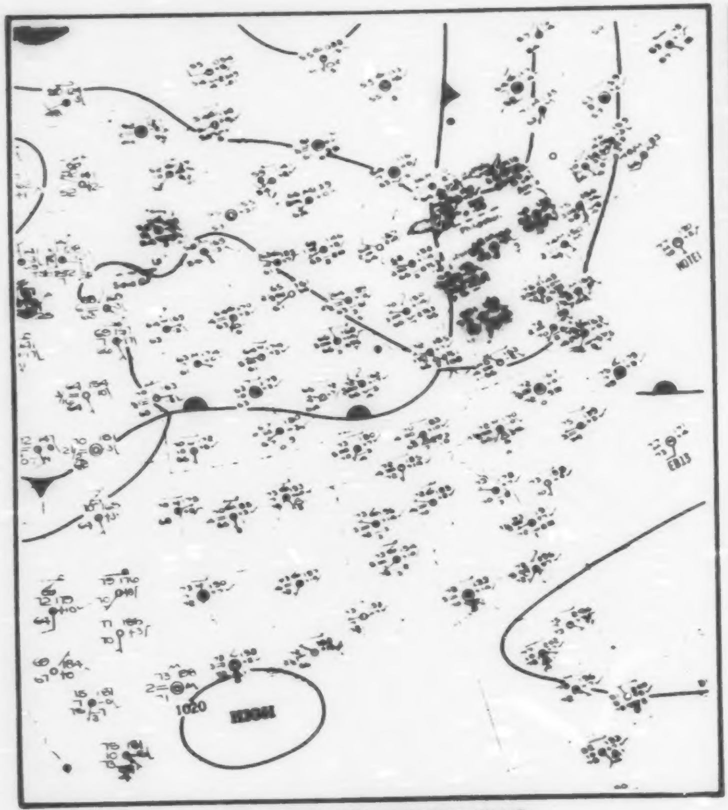
87
34
18
16

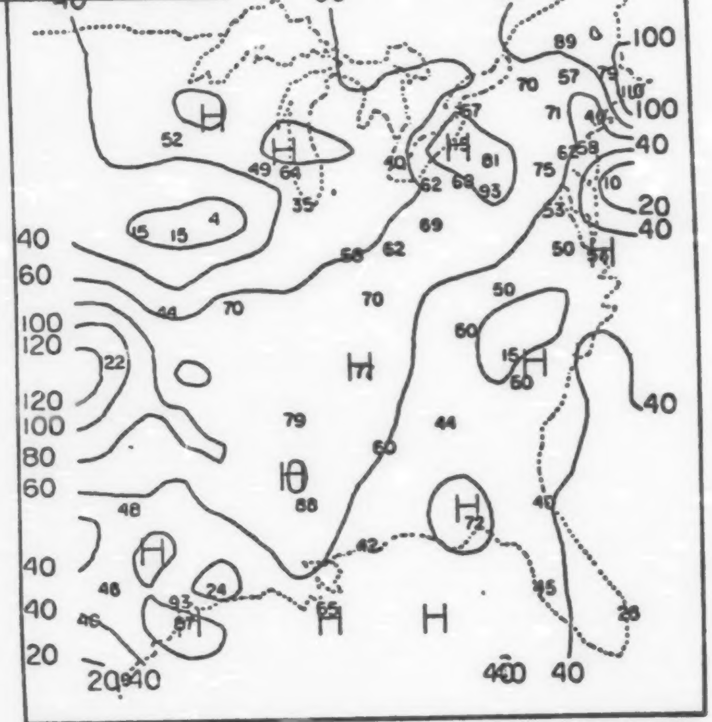
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, AUGUST 16, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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40
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40
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120
120
100
80
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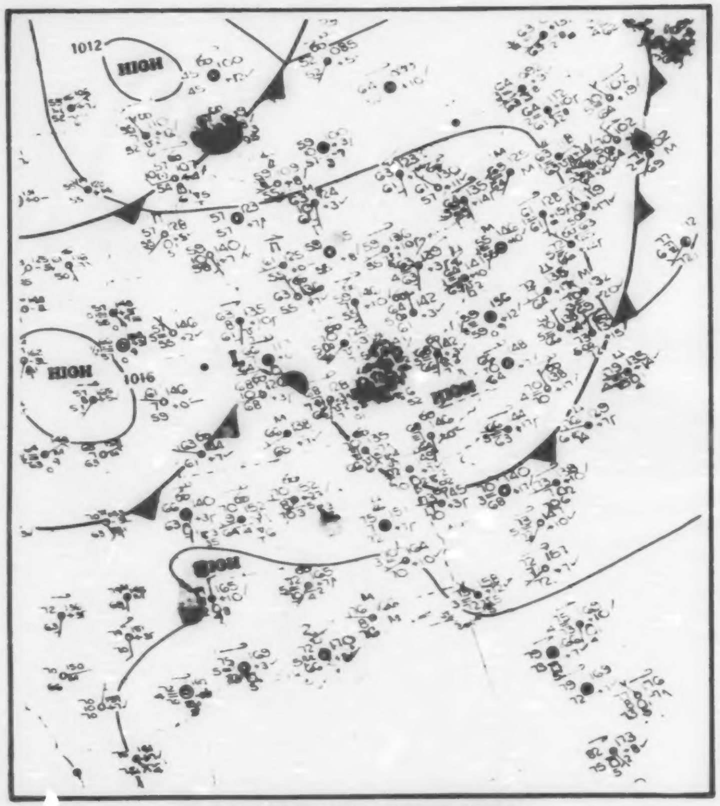
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, AUGUST 17, 1974


1012
HIGH
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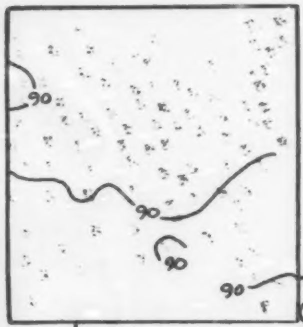
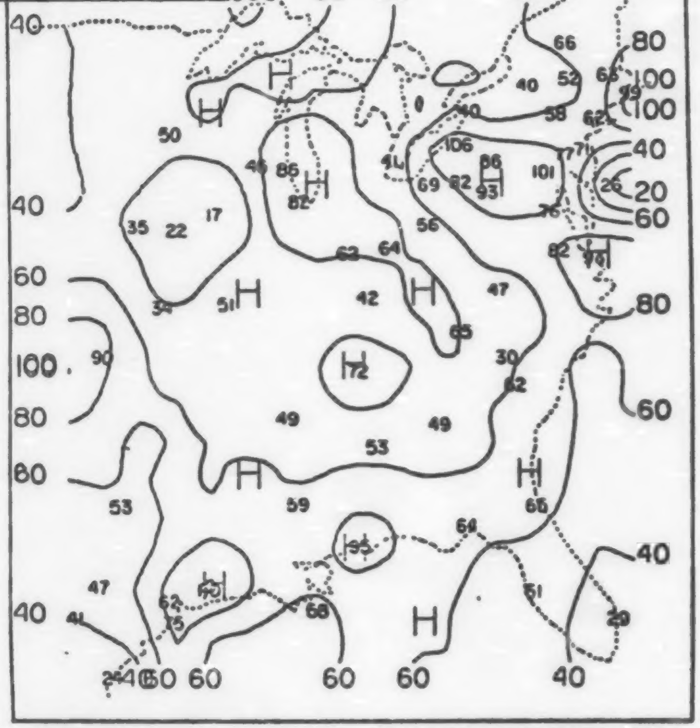
1016
HIGH
HIGH

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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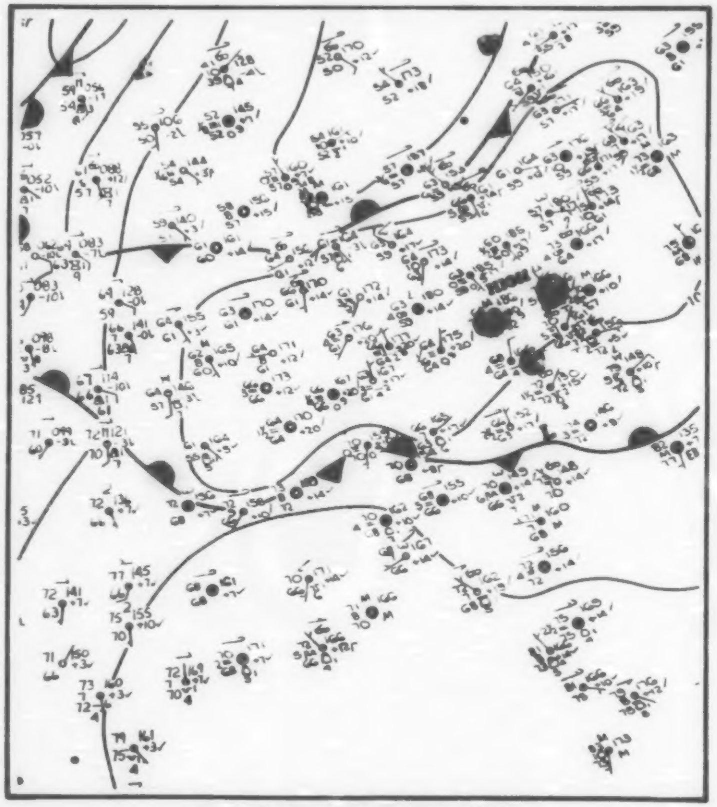
90

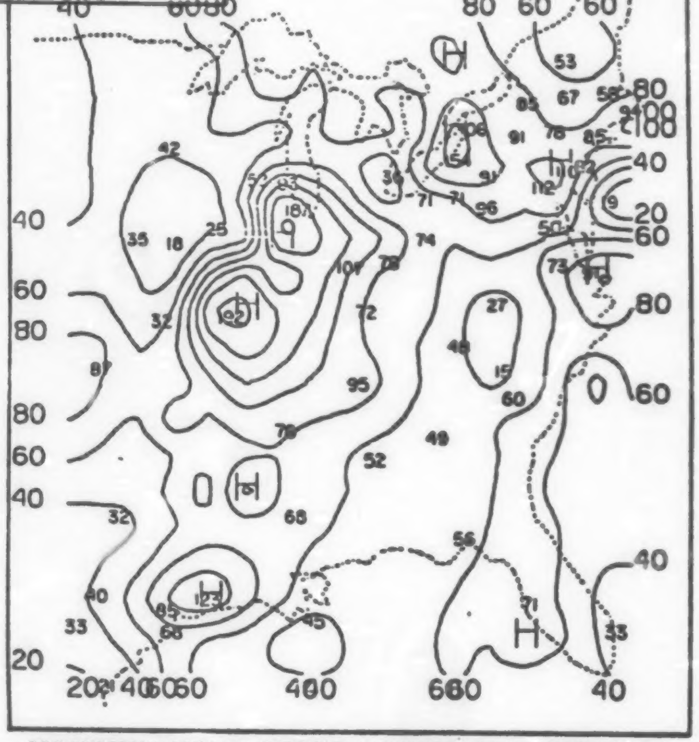
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, AUGUST 18, 1974



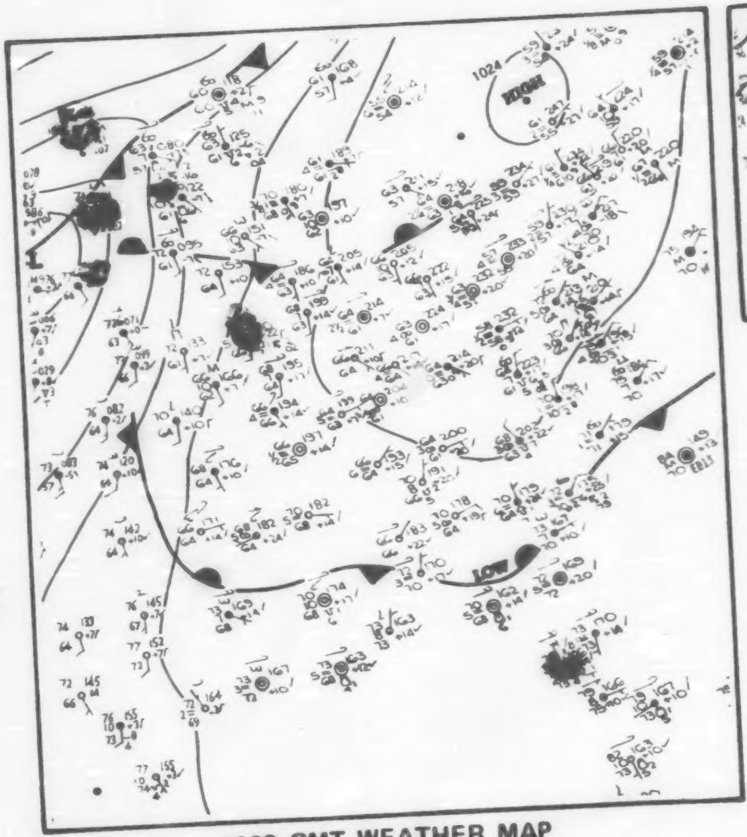
1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE

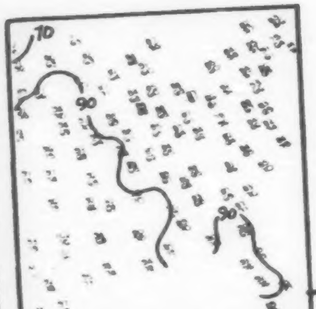


MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

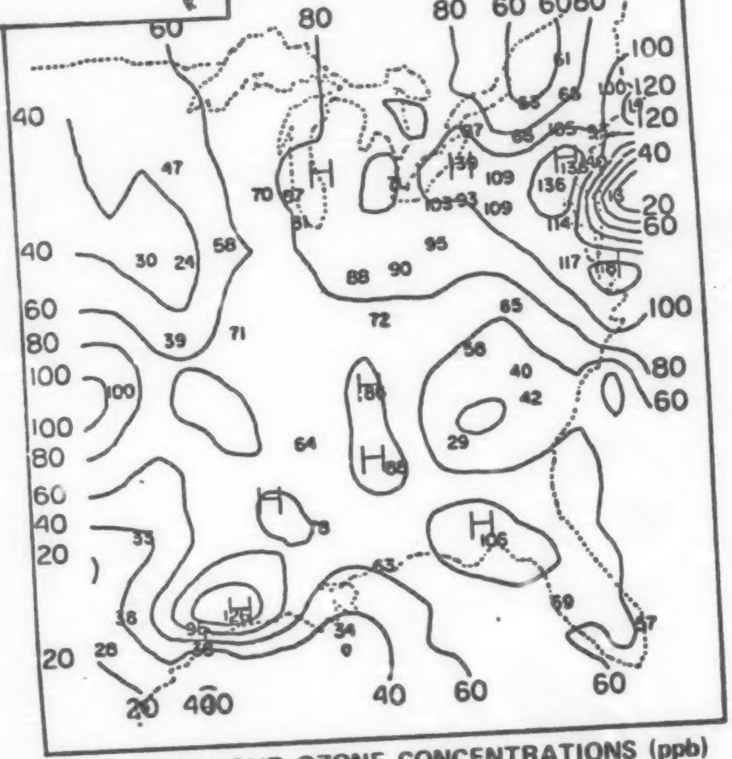
MONDAY, AUGUST 19, 1974


1024
HIGH
LOW

1200 GMT WEATHER MAP

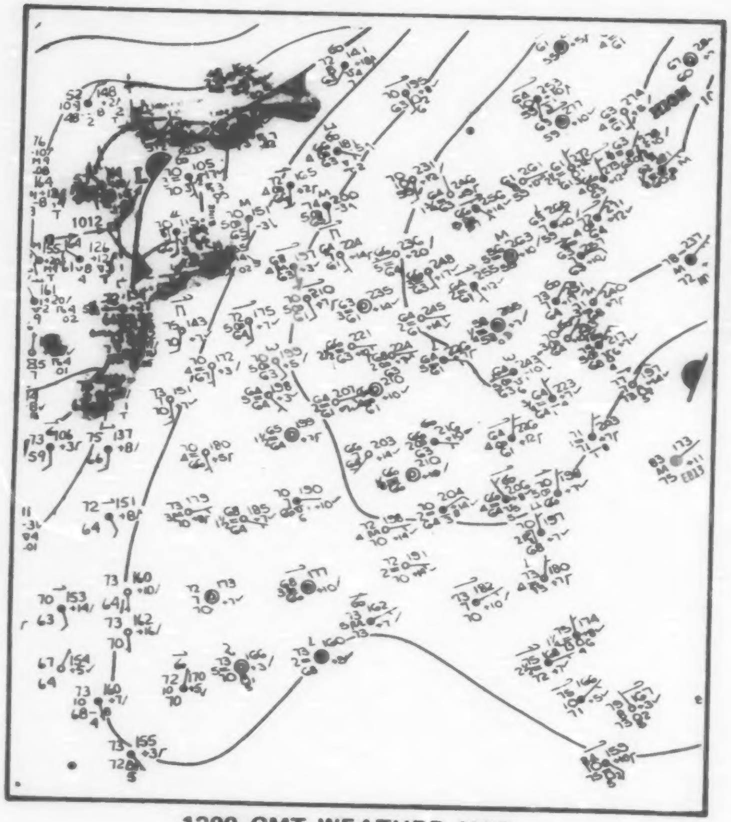


MAXIMUM-
MINIMUM
TEMPERATURE

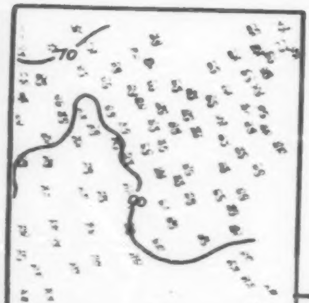


MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, AUGUST 20, 1974



1200 GMT WEATHER MAP



MAXIMUM-
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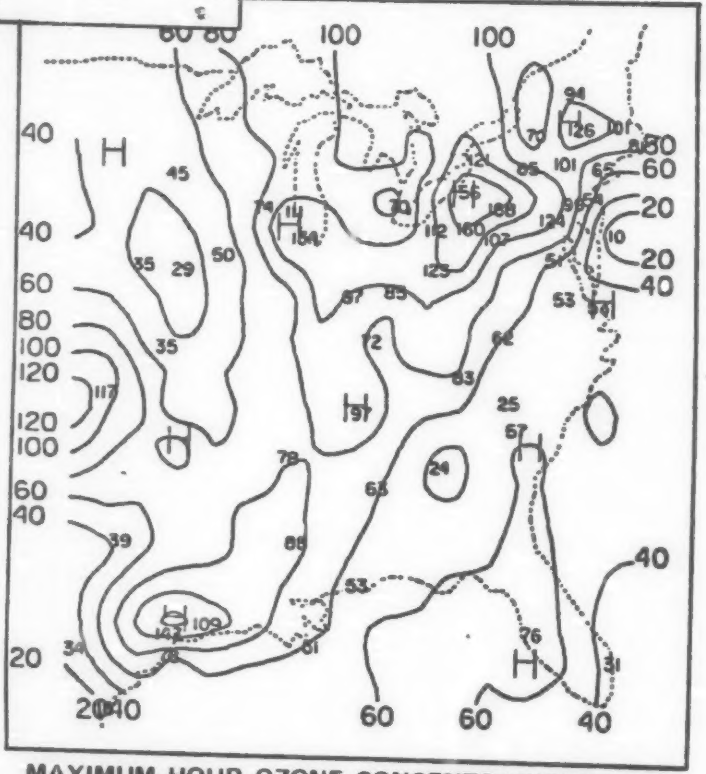
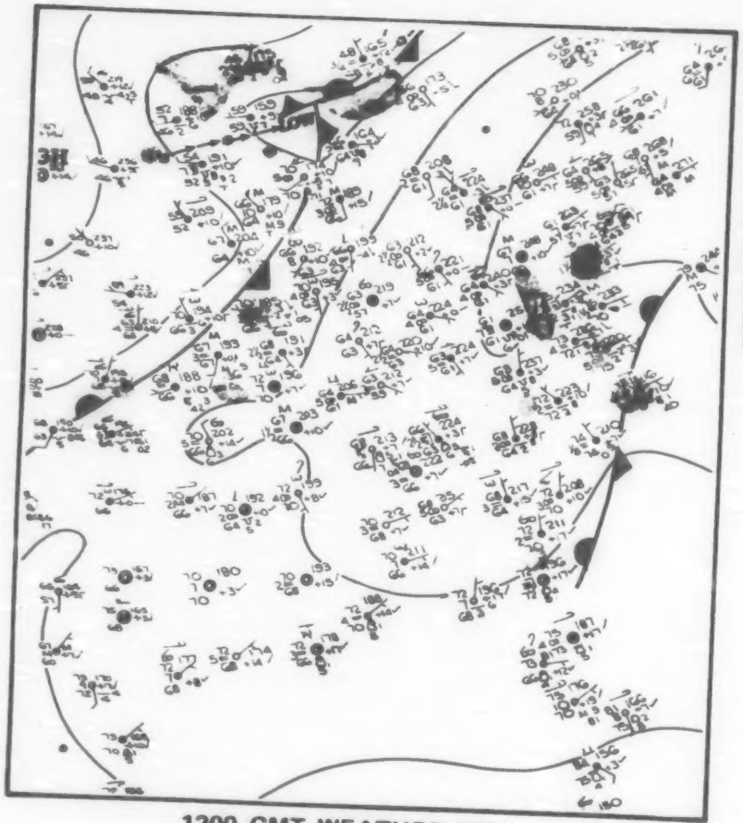
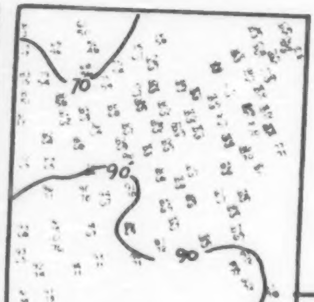


MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

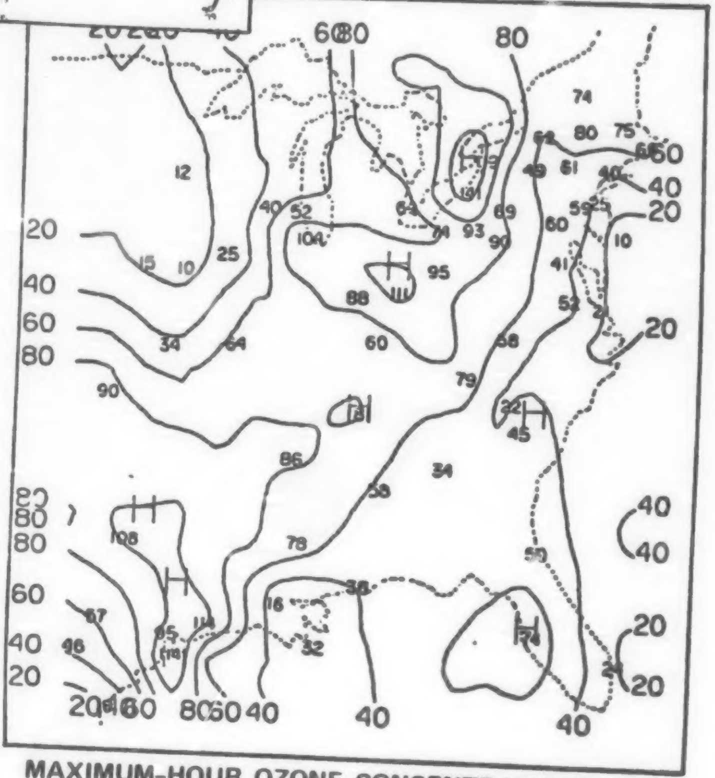
WEDNESDAY, AUGUST 21, 1974



1200 GMT WEATHER MAP

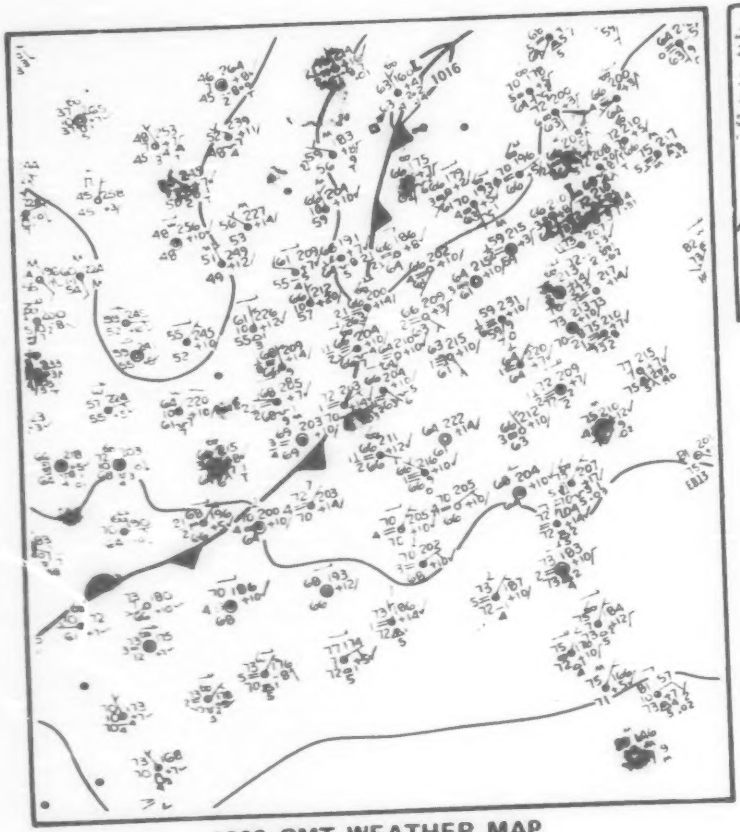


MAXIMUM-
MINIMUM
TEMPERATURE

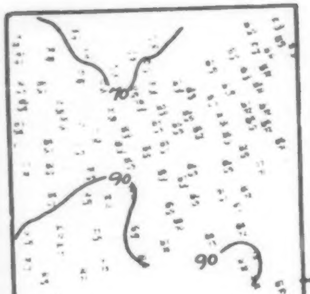


MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, AUGUST 22, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
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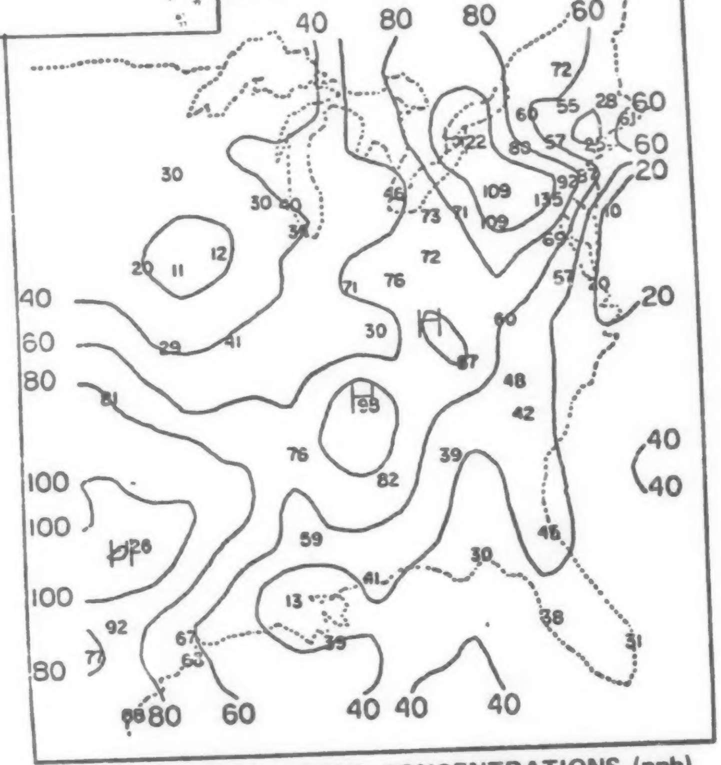
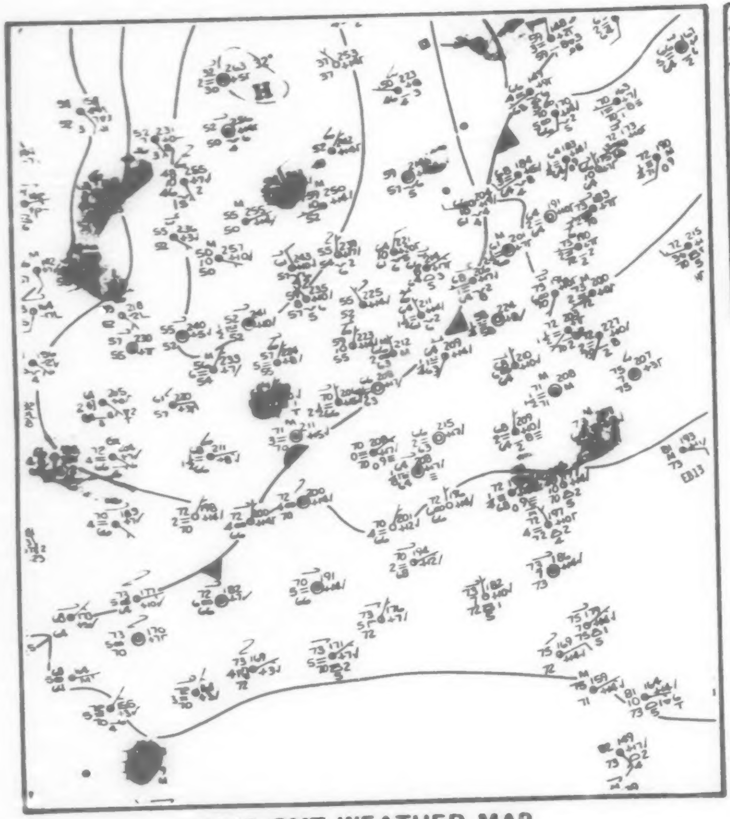
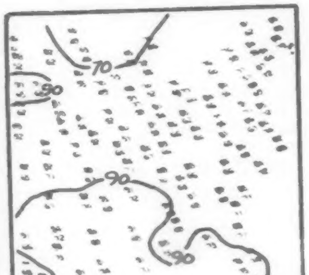


MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, AUGUST 23, 1974



1200 GMT WEATHER MAP



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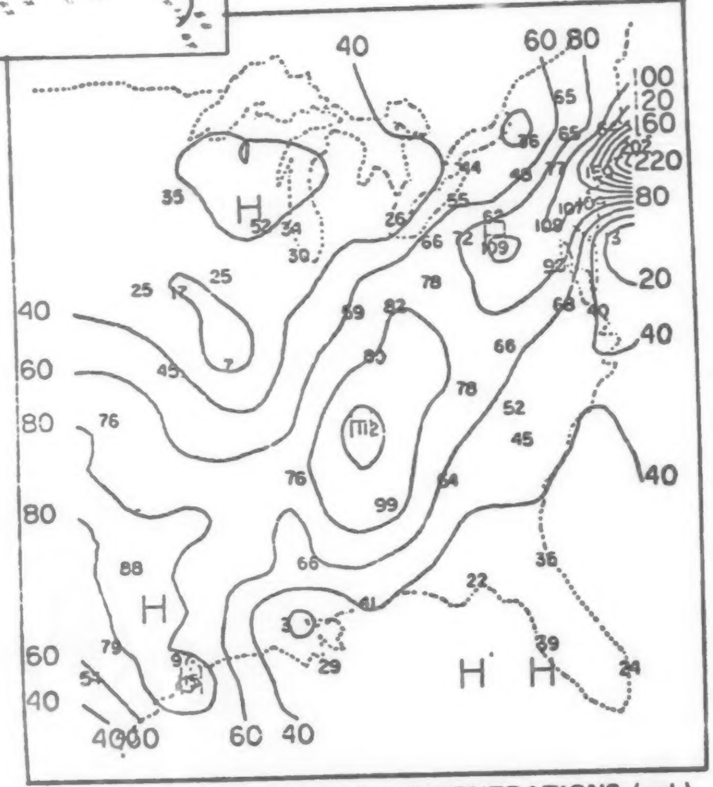
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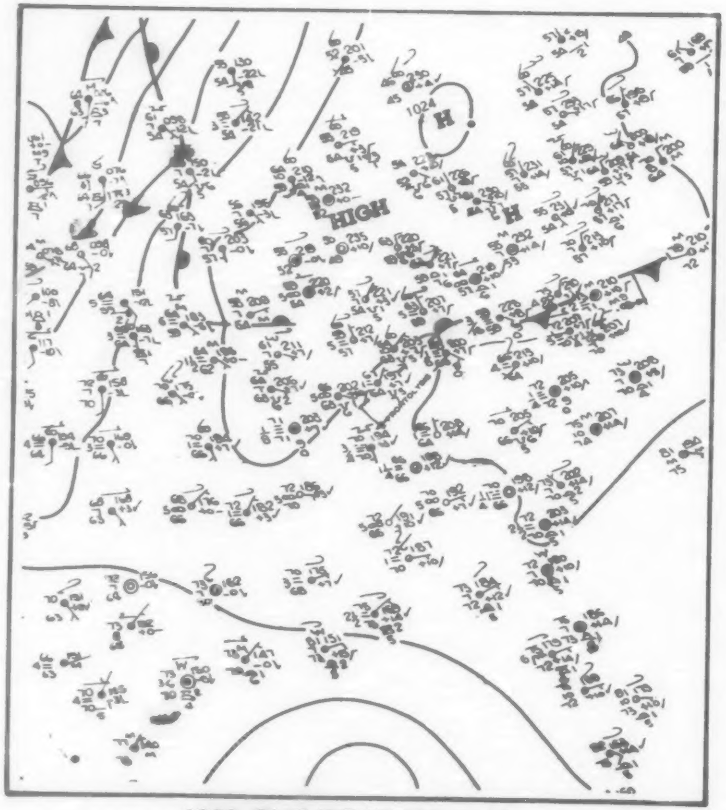
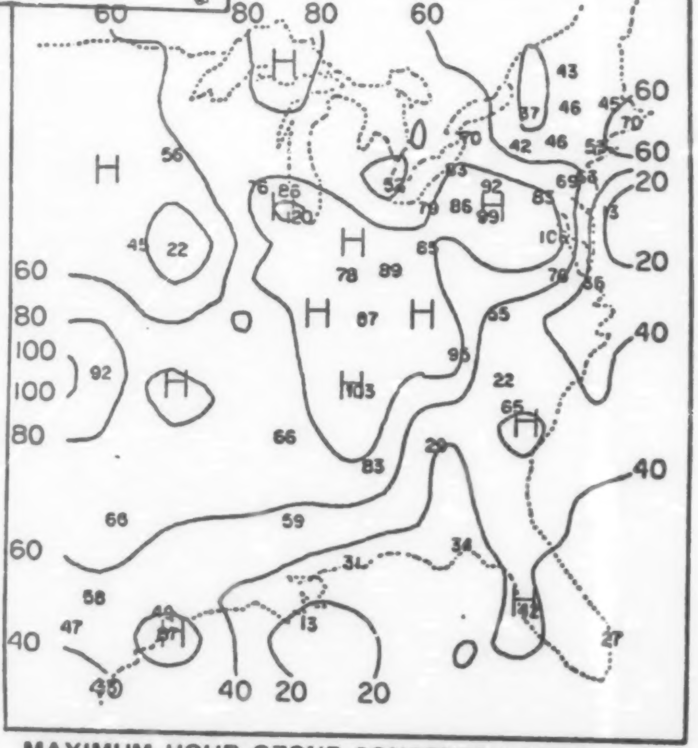
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, AUGUST 24, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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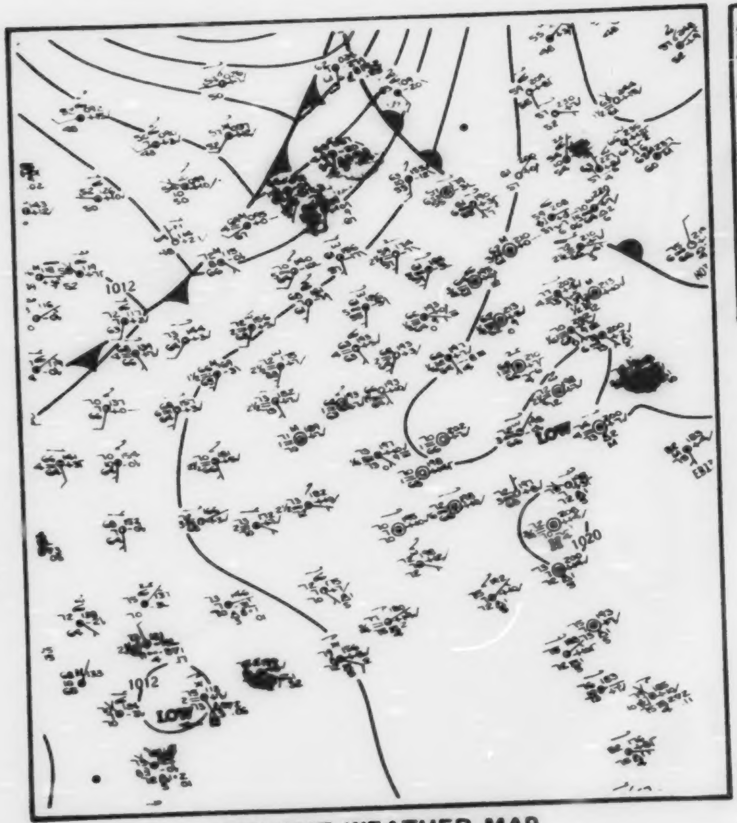
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, AUGUST 25, 1974


1012
1012
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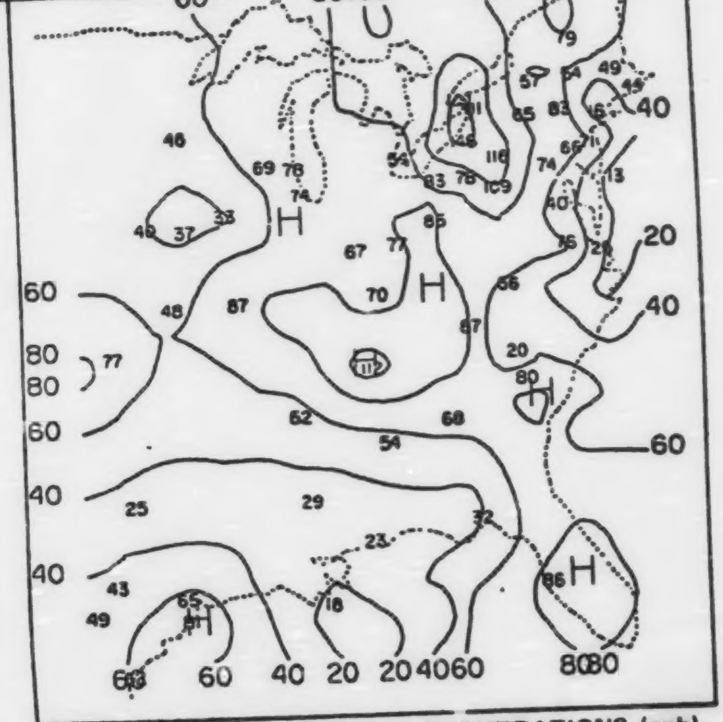
LOW
1020

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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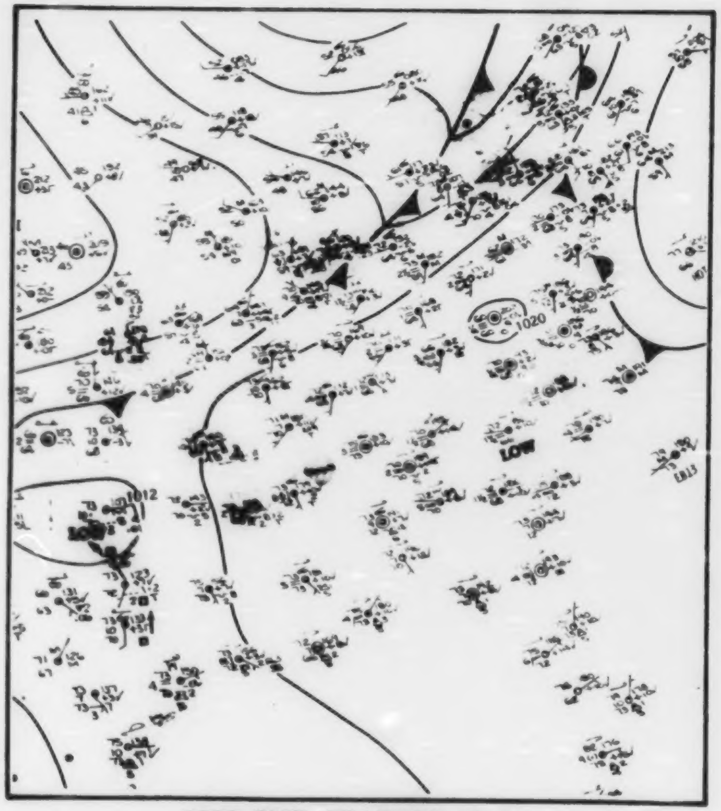
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, AUGUST 26, 1974


1020
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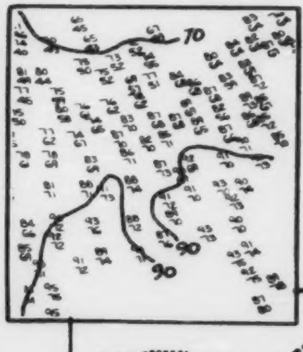
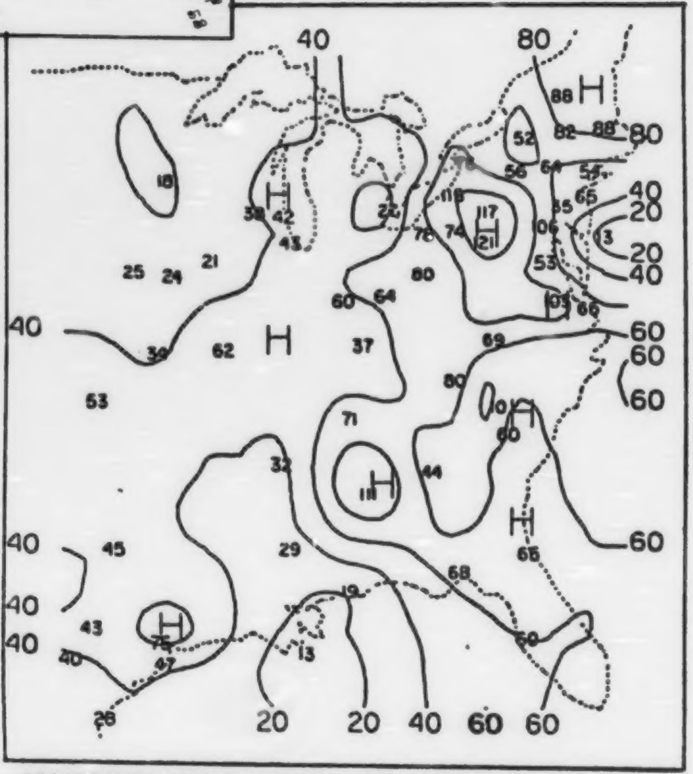
LOW

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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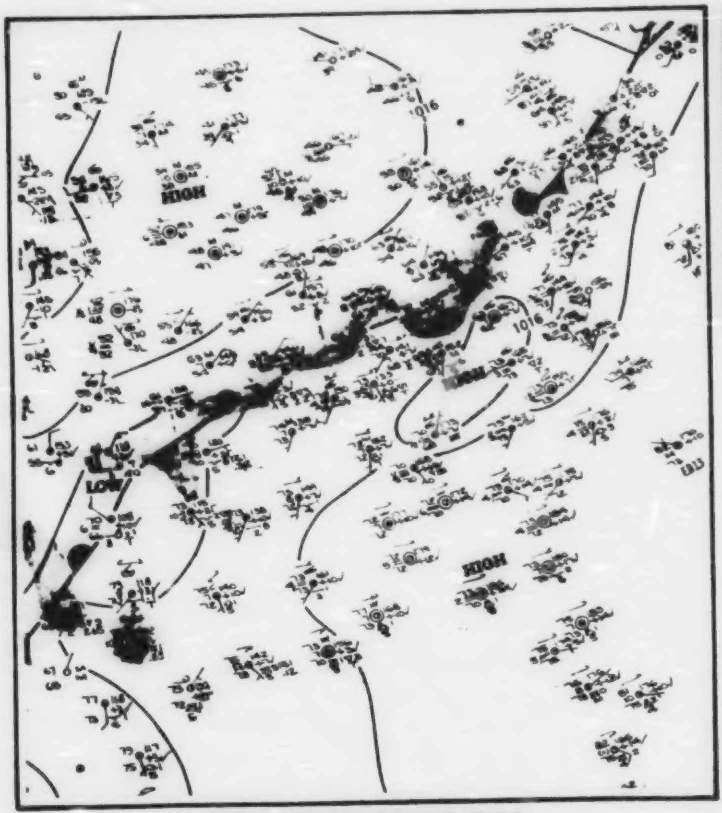
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

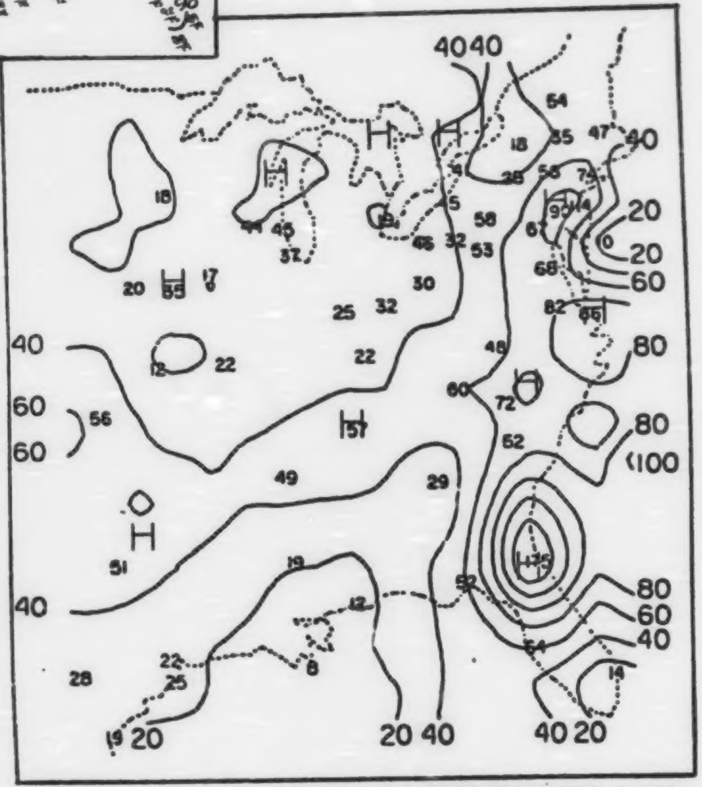
TUESDAY, AUGUST 27, 1974



HIGH
HIGH
HIGH
LOW
1016
1016

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE



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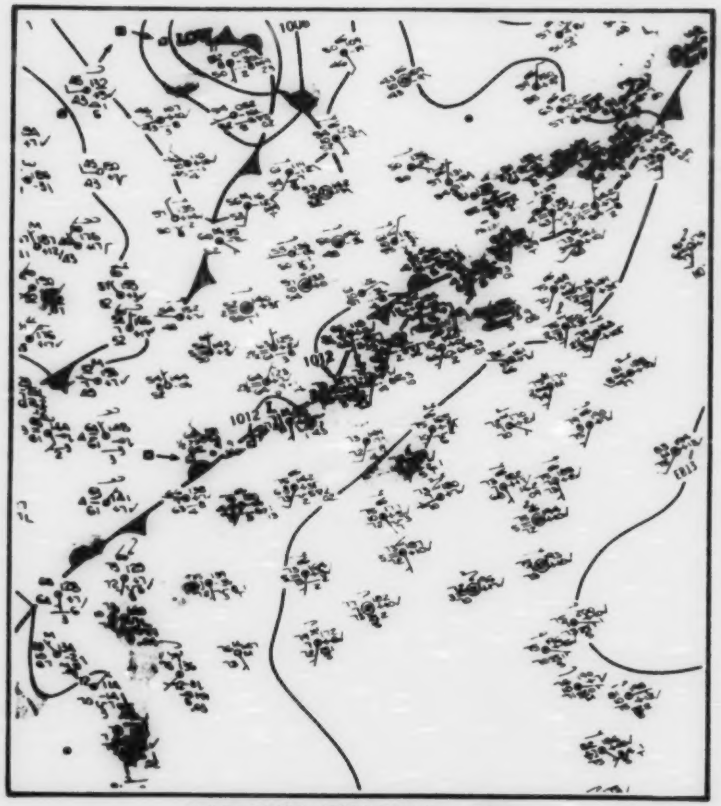
135

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, AUGUST 28, 1974



1012
1012
1008

1200 GMT WEATHER MAP

70
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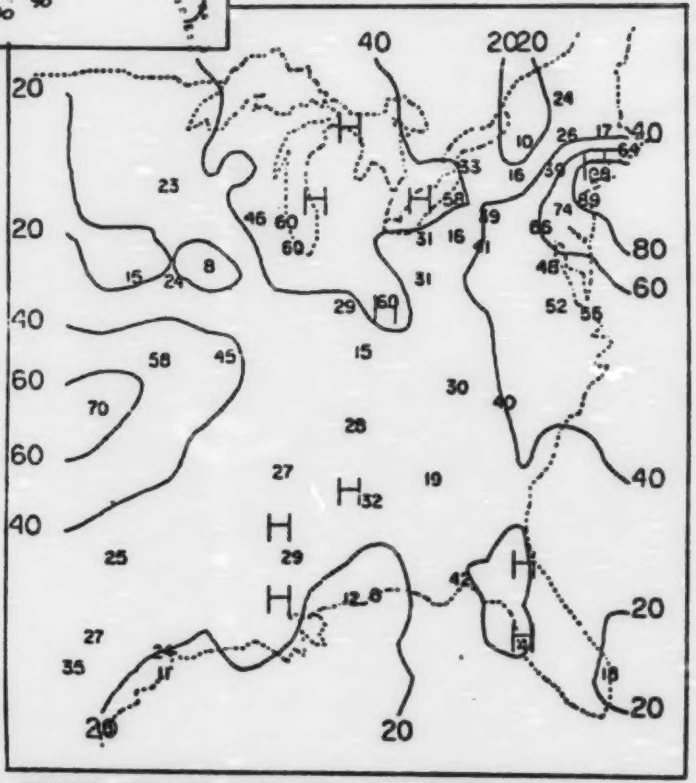
MAXIMUM-
MINIMUM
TEMPERATURE



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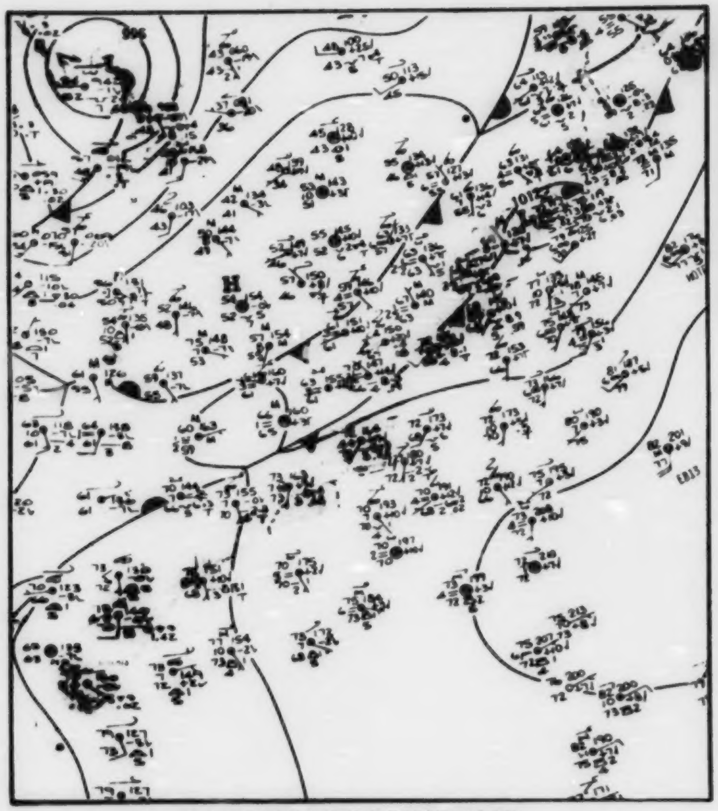
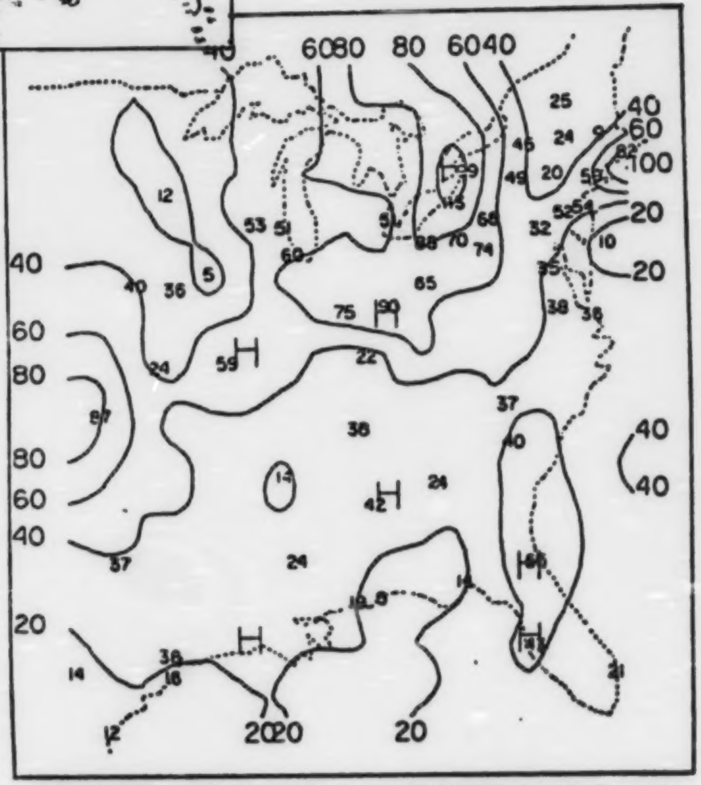
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, AUGUST 29, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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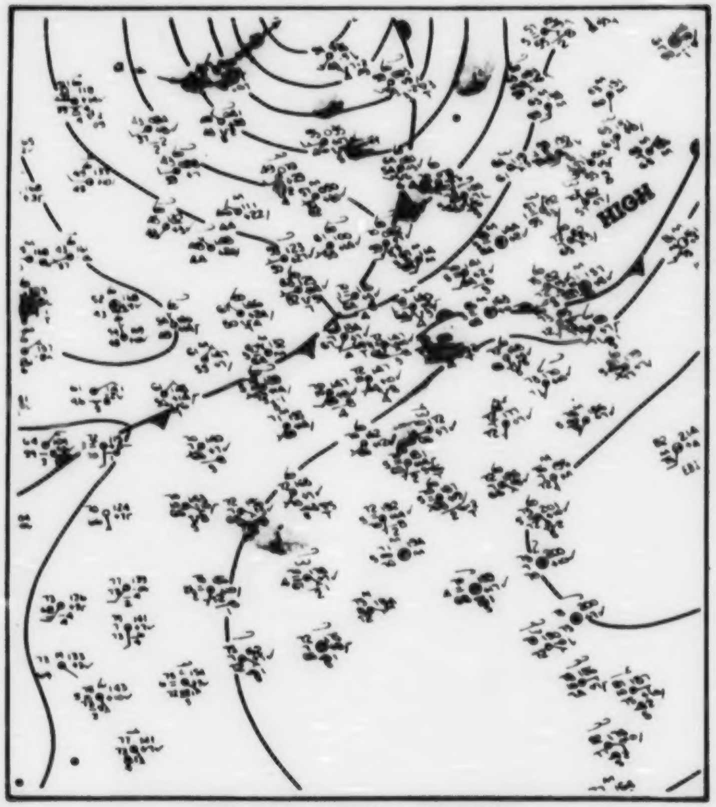
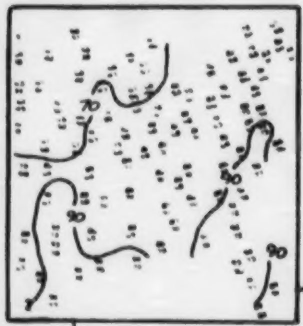
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

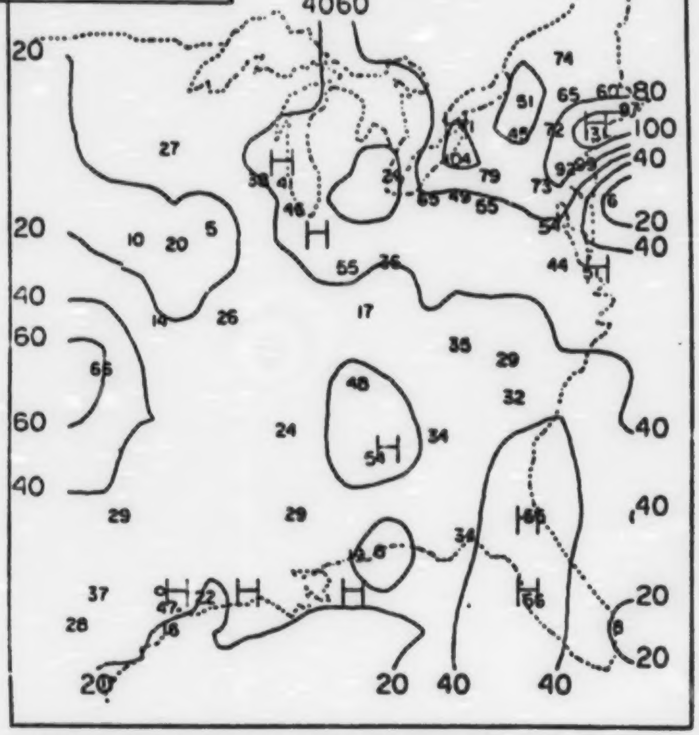
FRIDAY, AUGUST 30, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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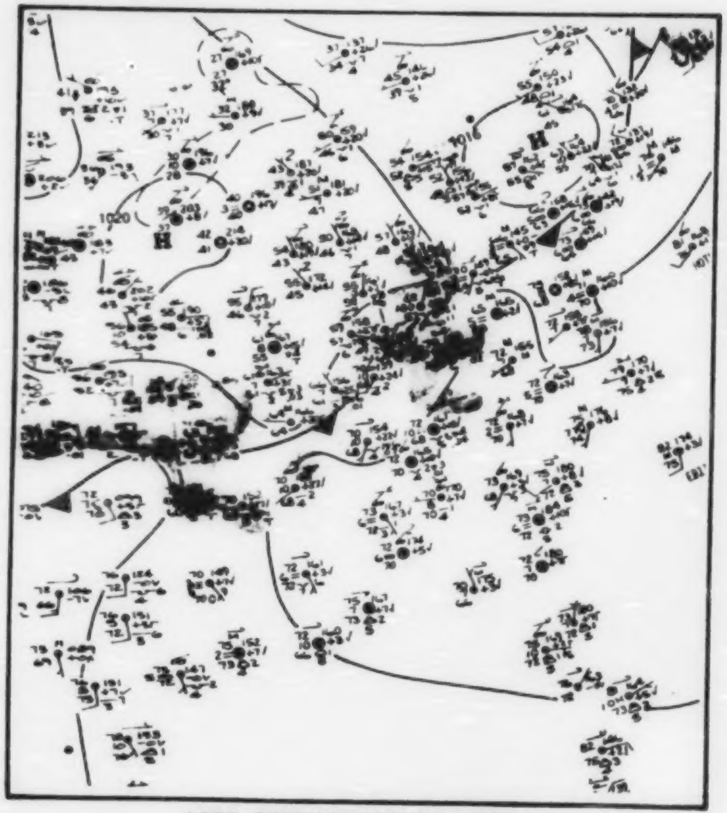
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, AUGUST 31, 1974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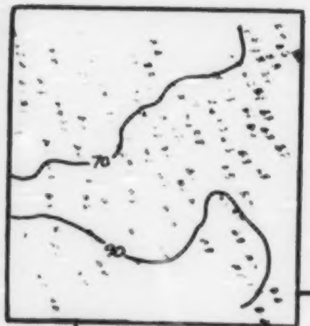
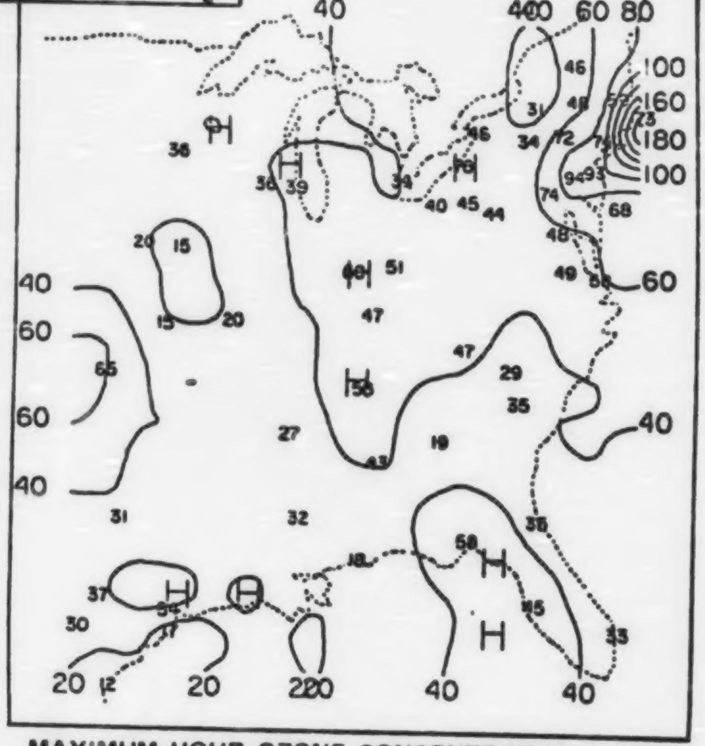
1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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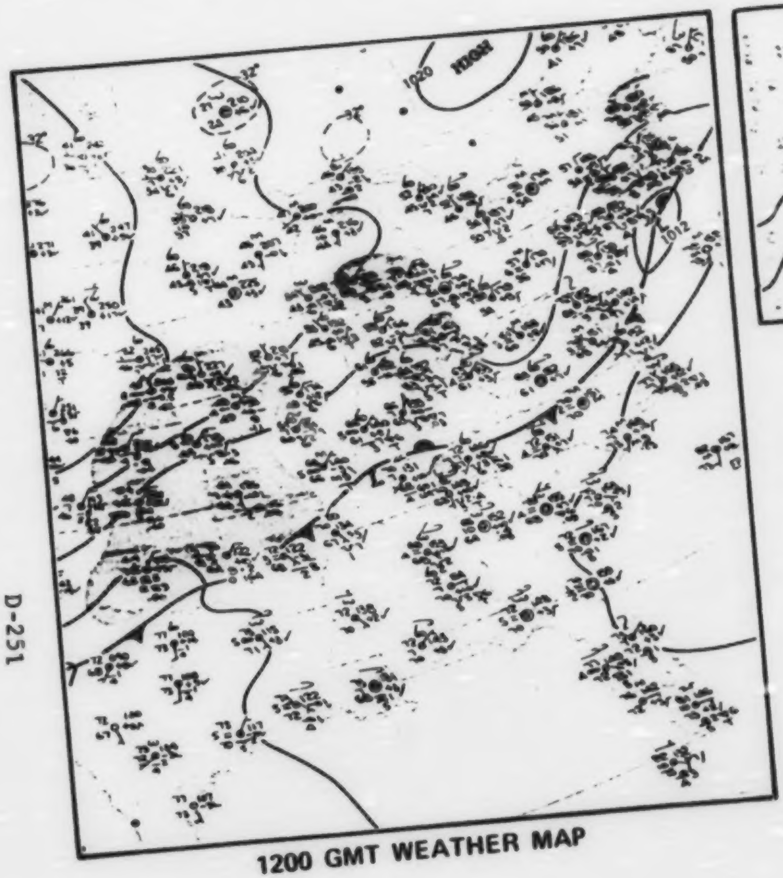
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, SEPTEMBER 1, 1974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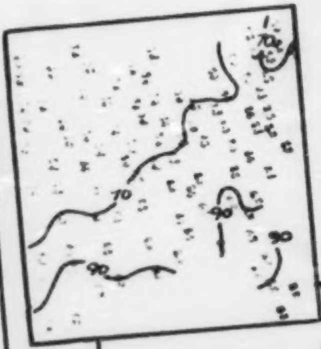
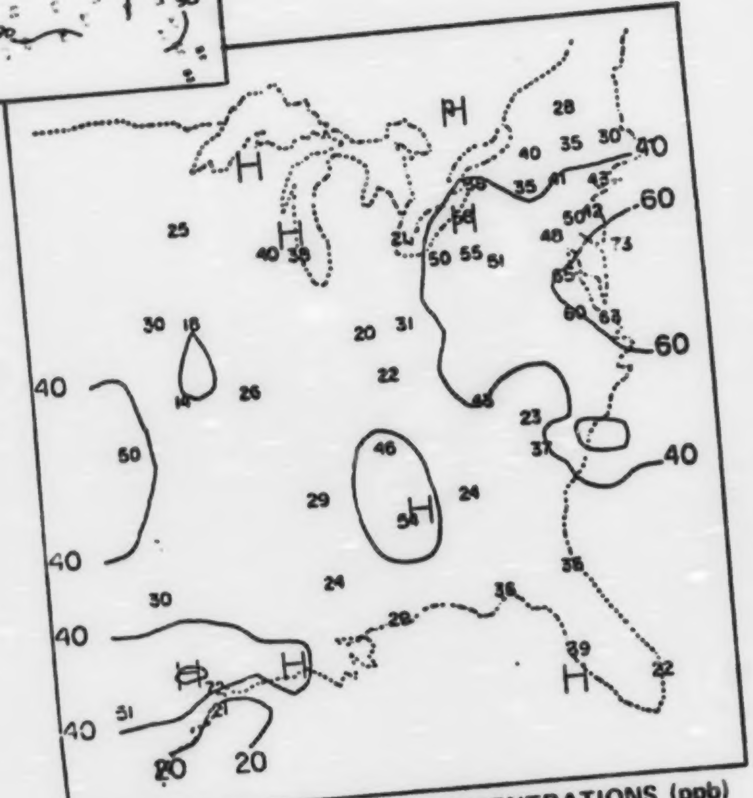
1200 GMT WEATHER MAP



MAXIMUM-MINIMUM TEMPERATURE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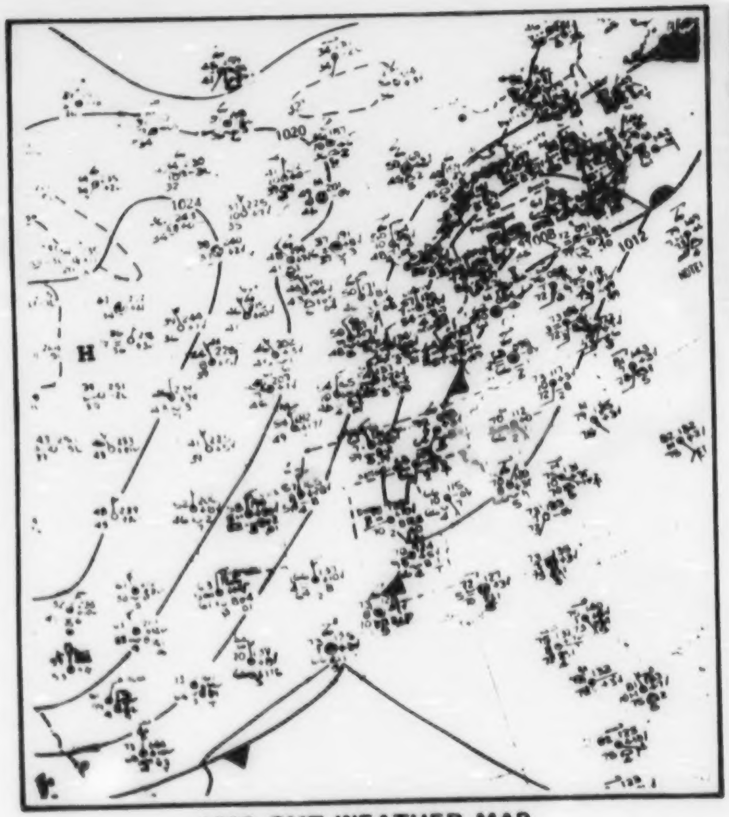
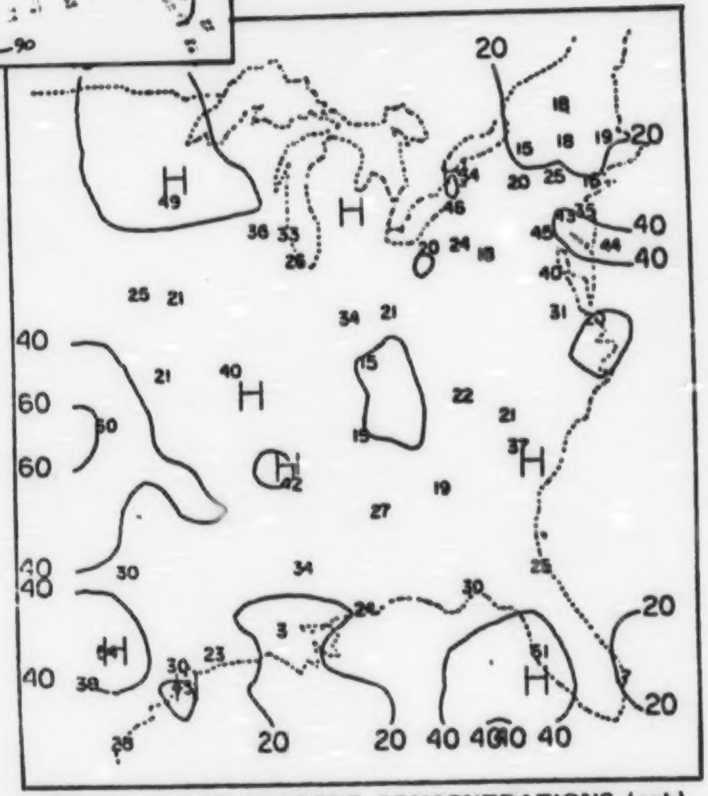
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, SEPTEMBER 2, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE



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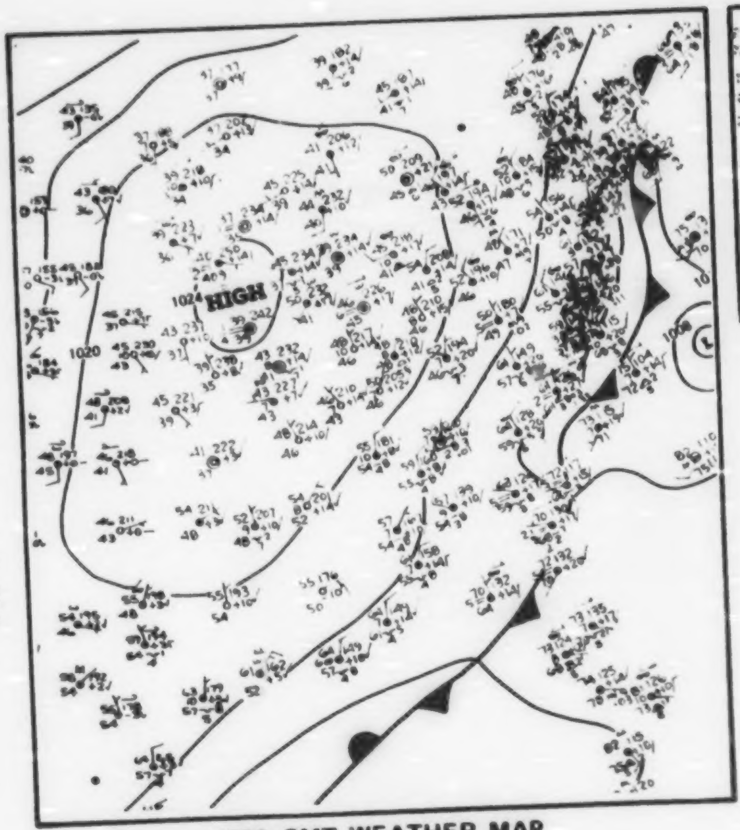
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, SEPTEMBER 3, 1974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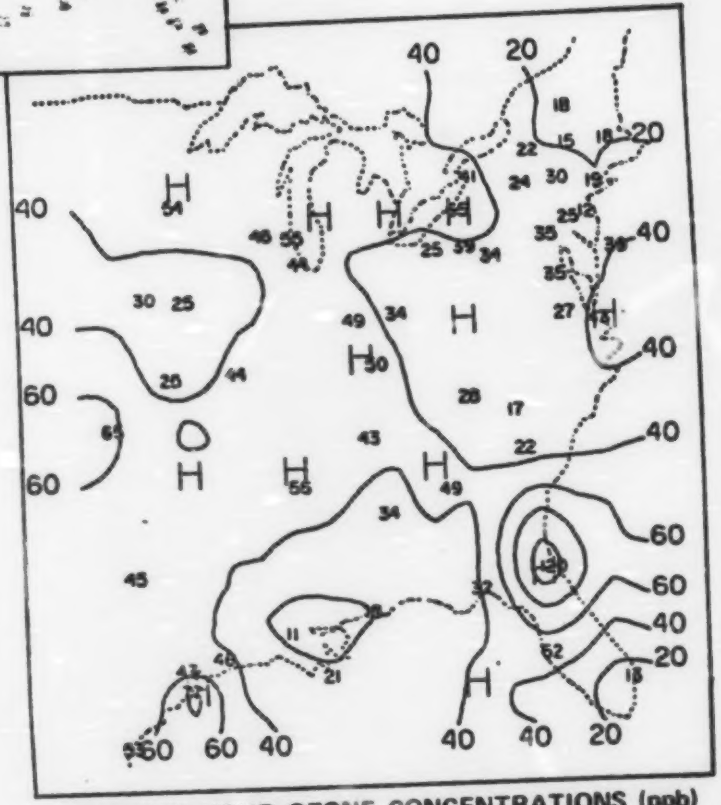
1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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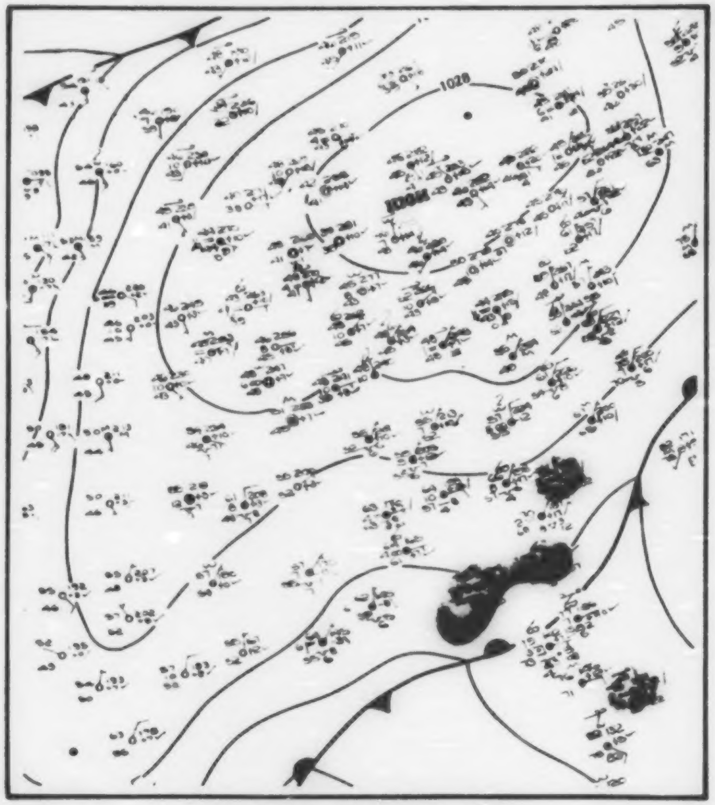
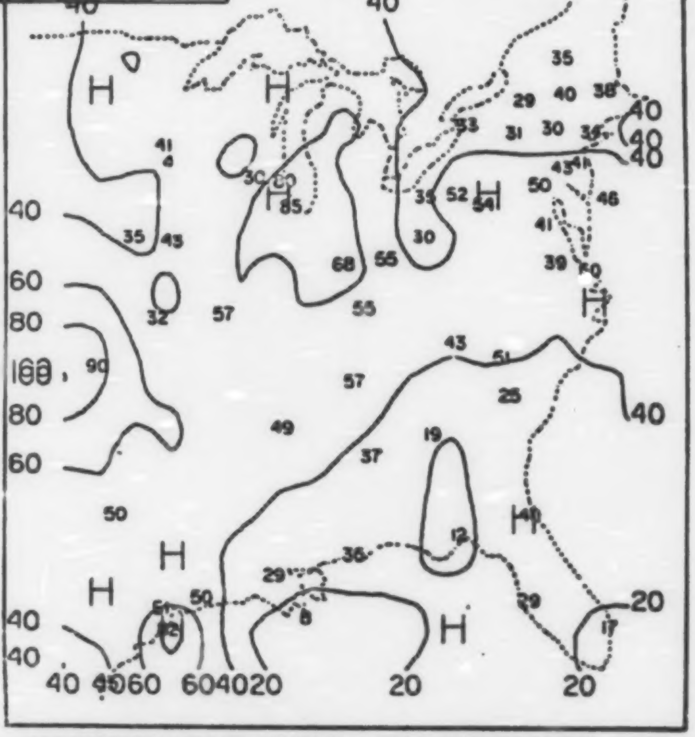
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, SEPTEMBER 4, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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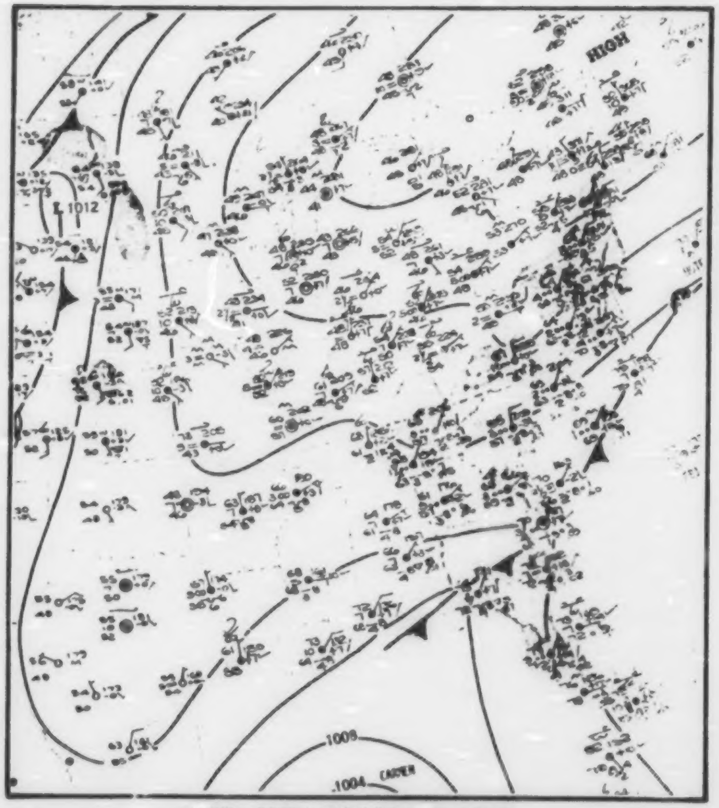
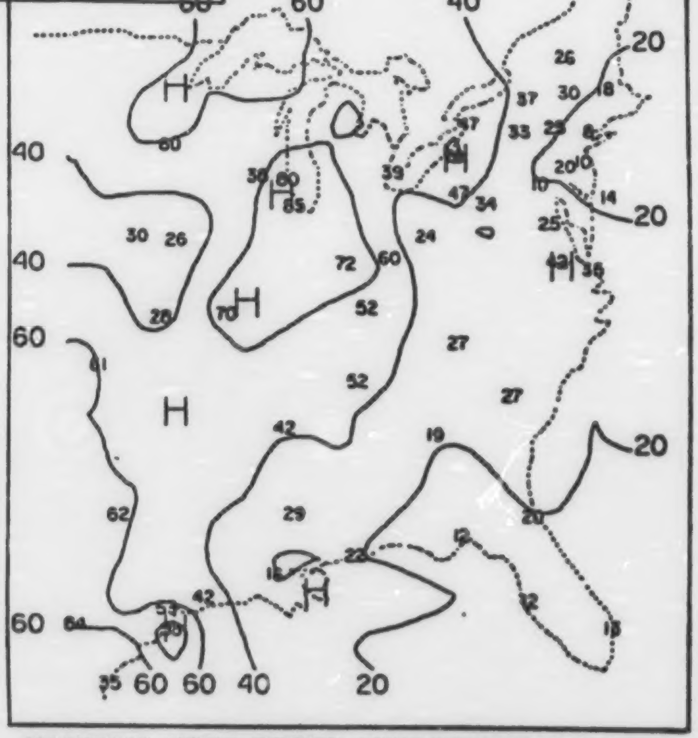
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, SEPTEMBER 5, 1974


HIGH
1012
1008
1004

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE


60
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72
70
52
42
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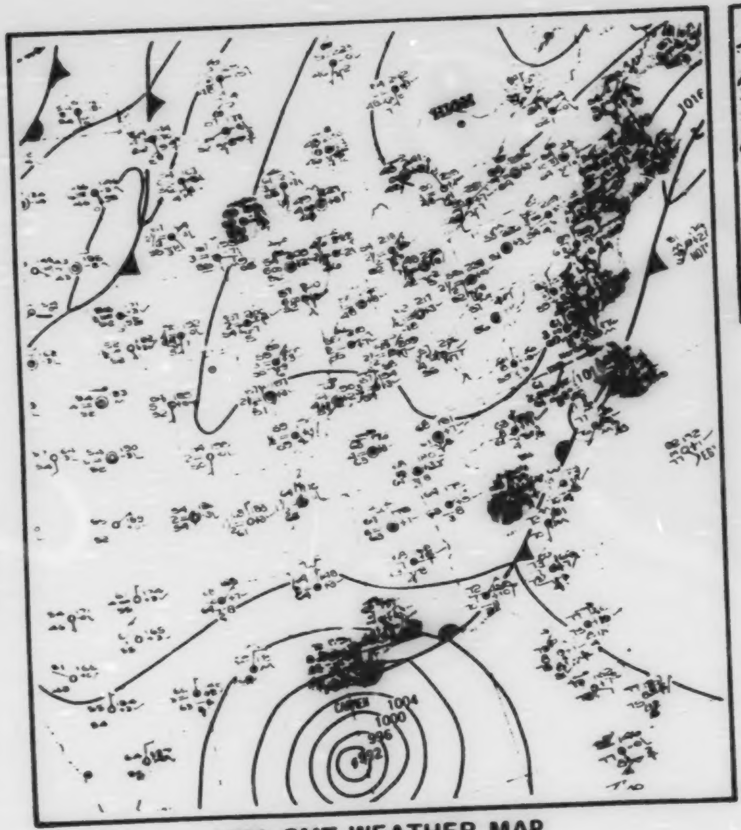
27
19
62
64
35

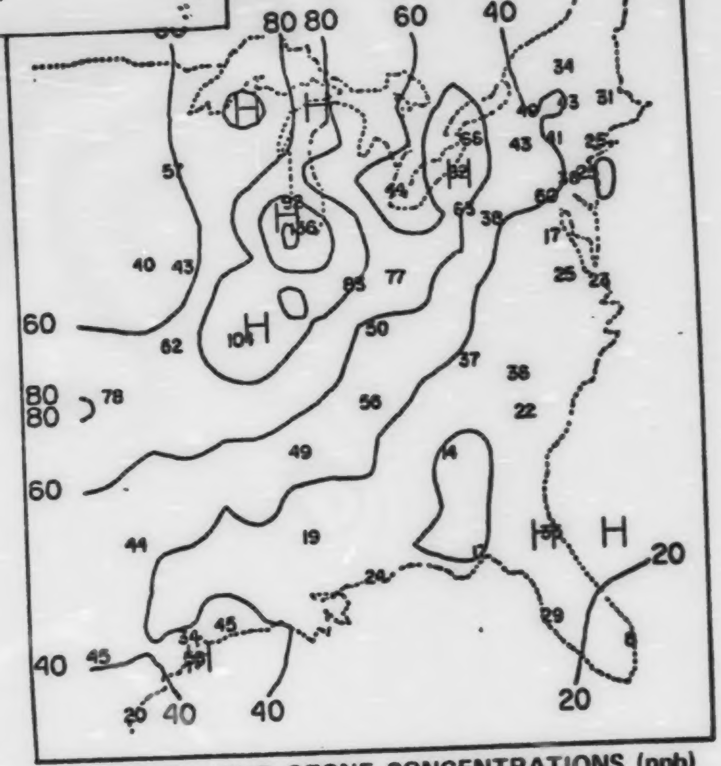
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, SEPTEMBER 6, 1974


1016
1016
1004
1000
996
992

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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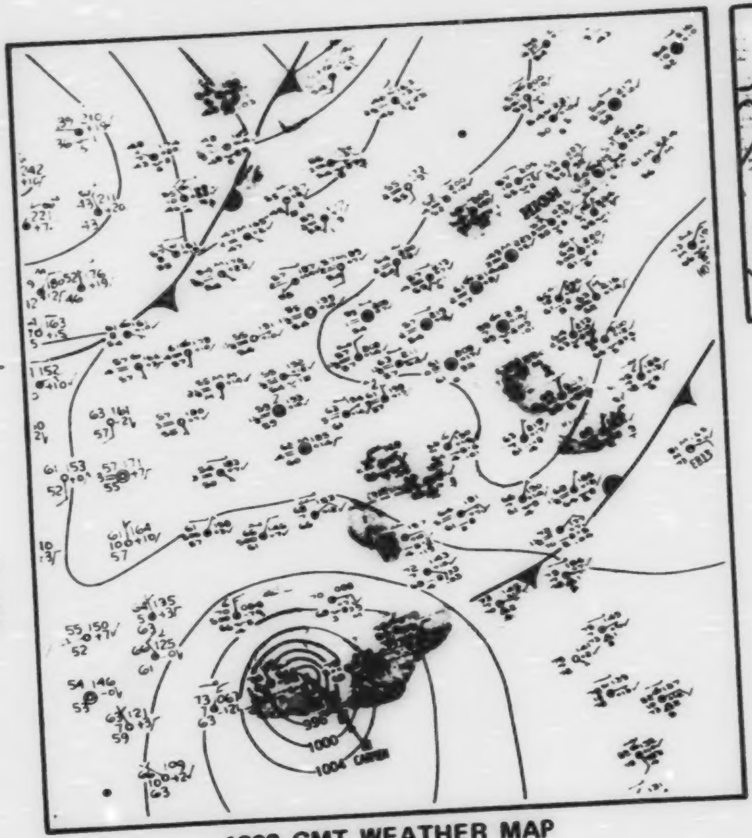
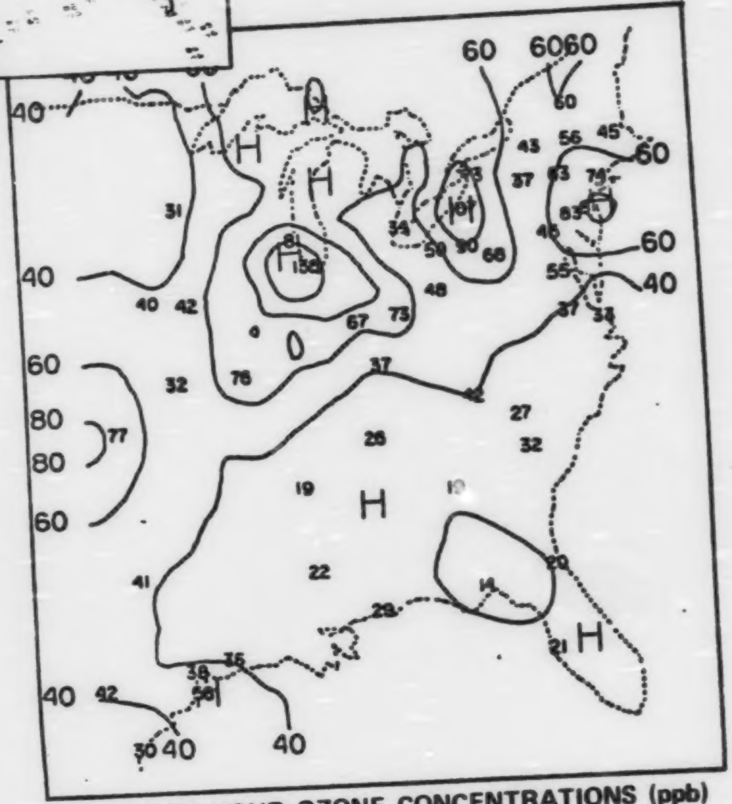
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, SEPTEMBER 7, 1974


996
1000
1004
CARMEN

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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73
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101
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32
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19
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42
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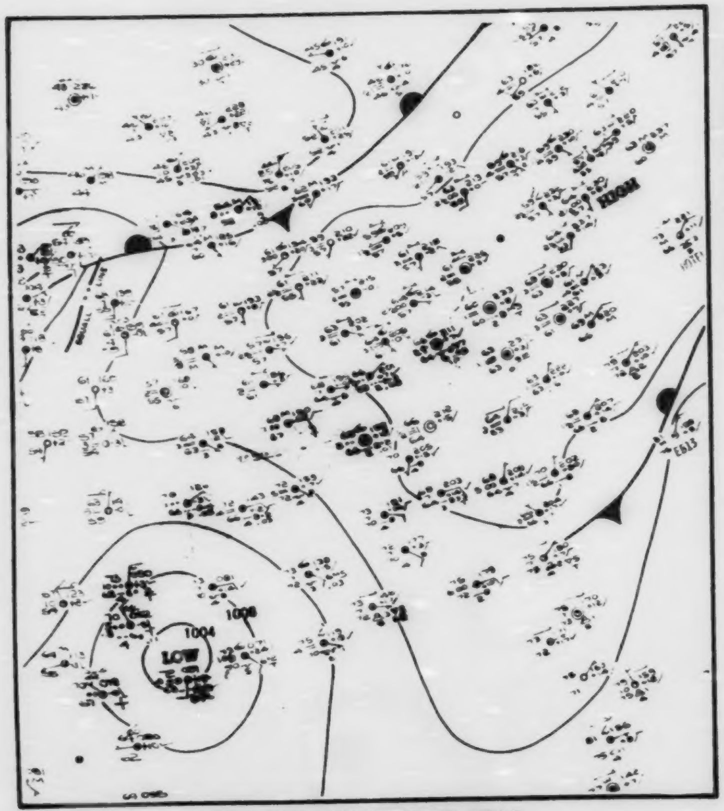
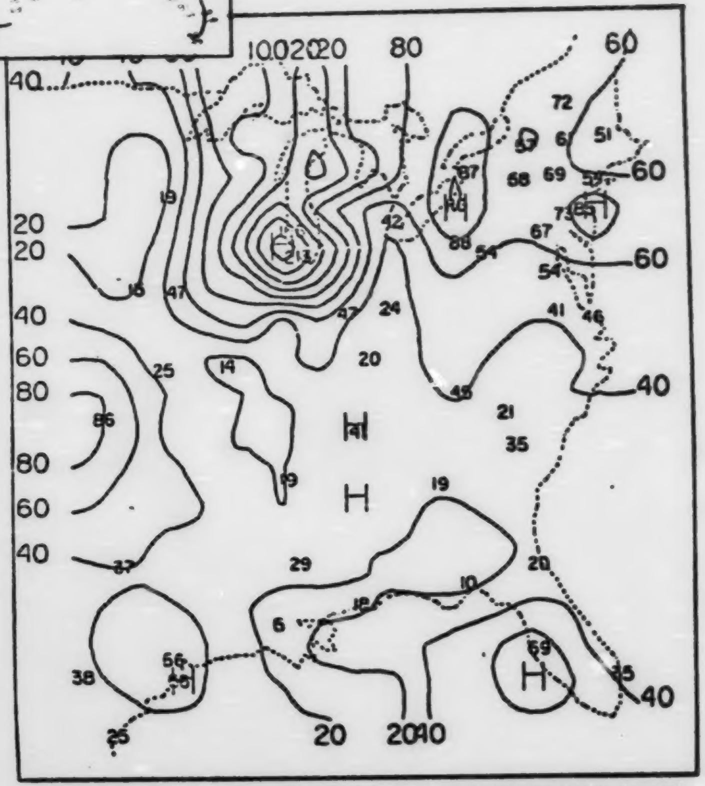
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, SEPTEMBER 8, 1974


HIGH
LOW
1004
1008

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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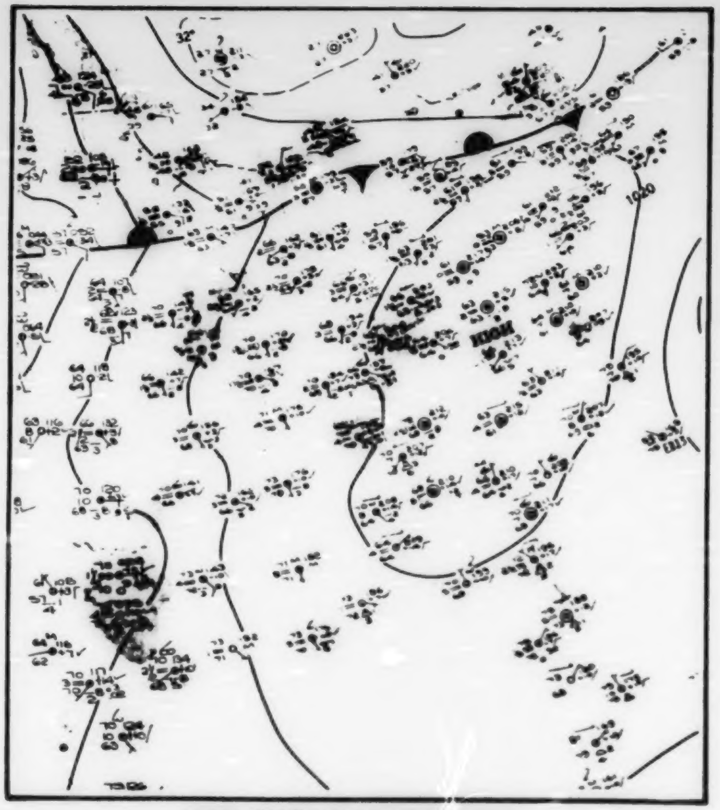
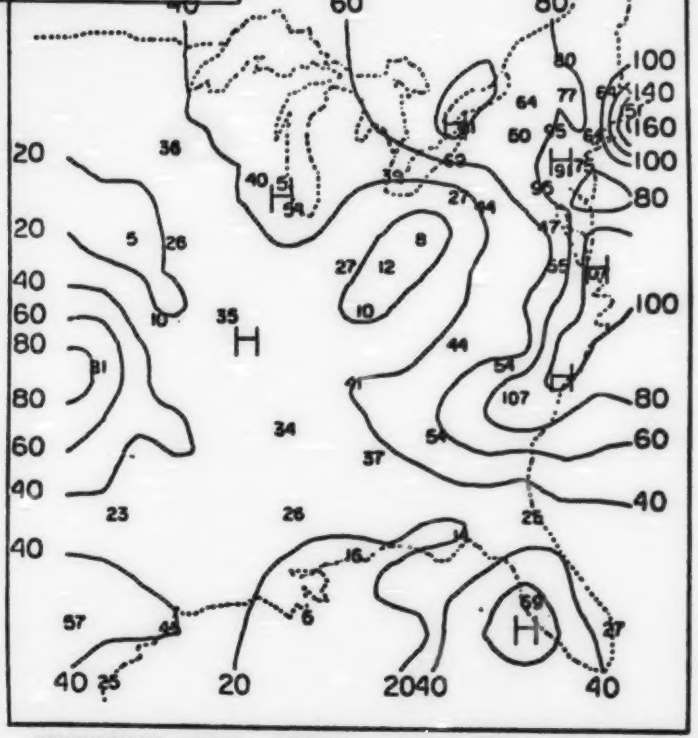
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, SEPTEMBER 9, 1974


32
1020
HIGH

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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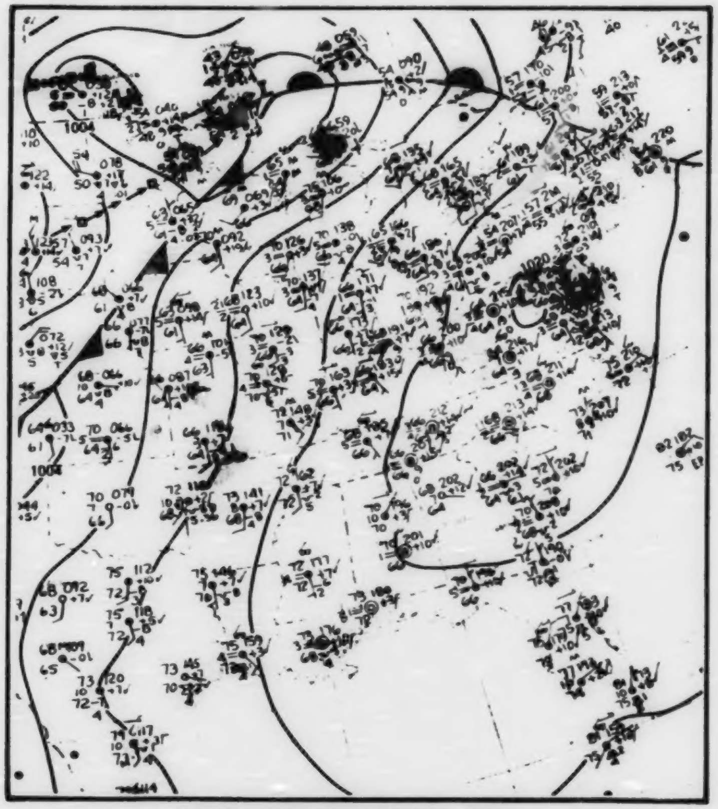
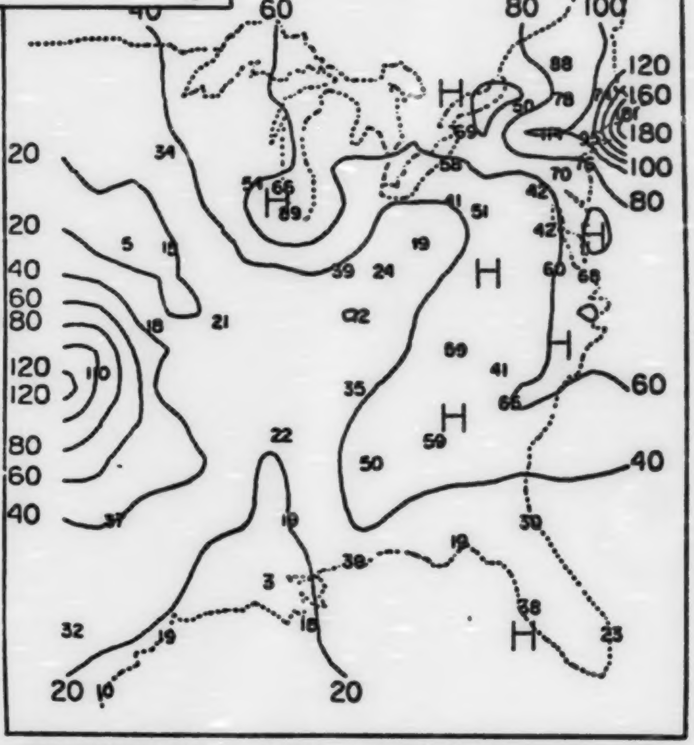
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, SEPTEMBER 10, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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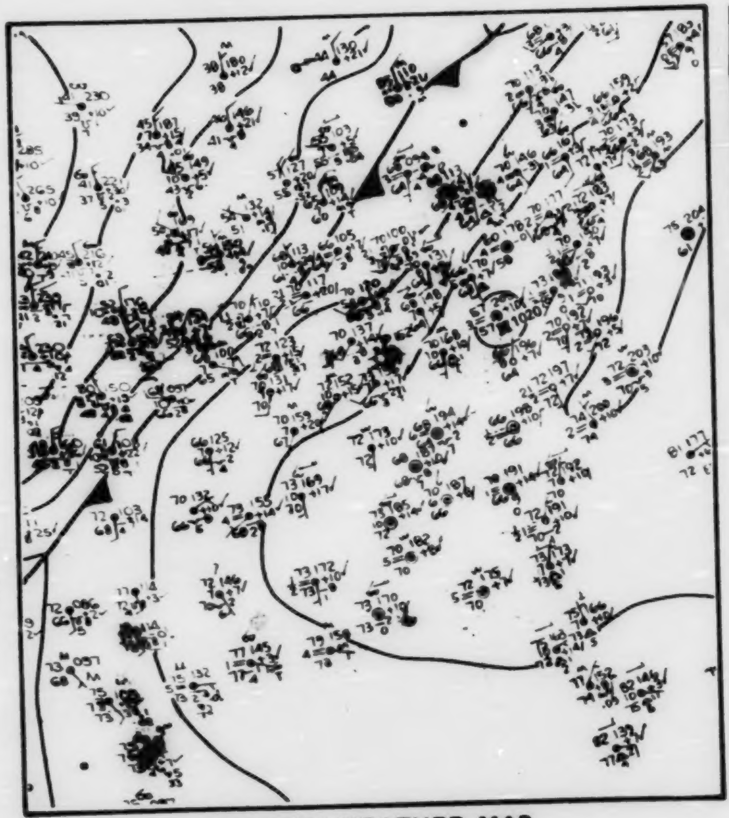
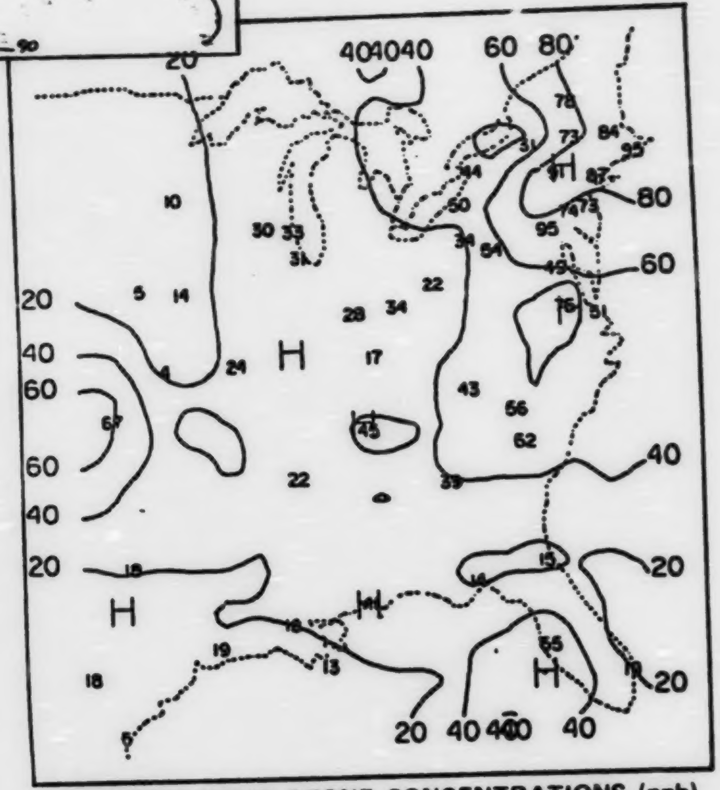
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, SEPTEMBER 11, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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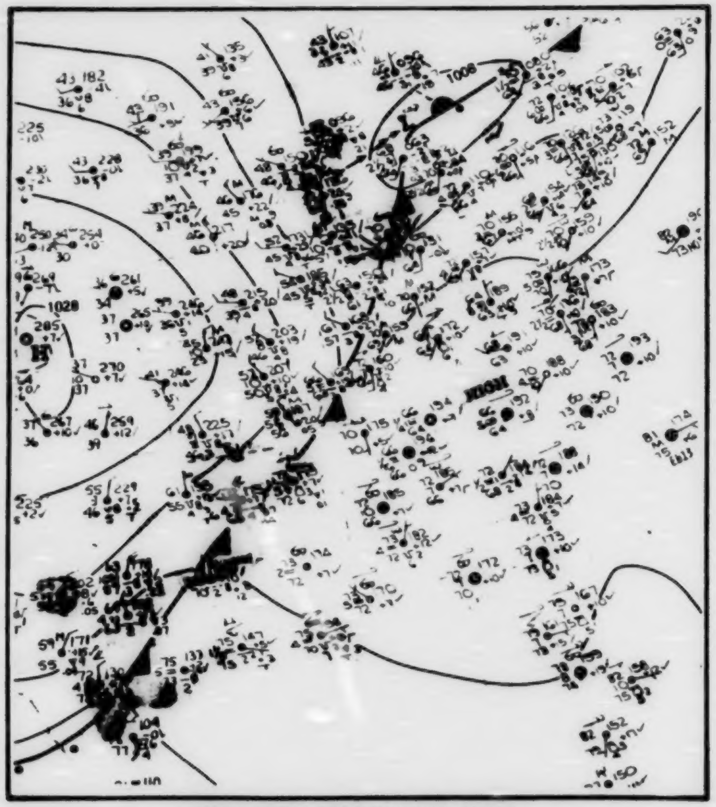
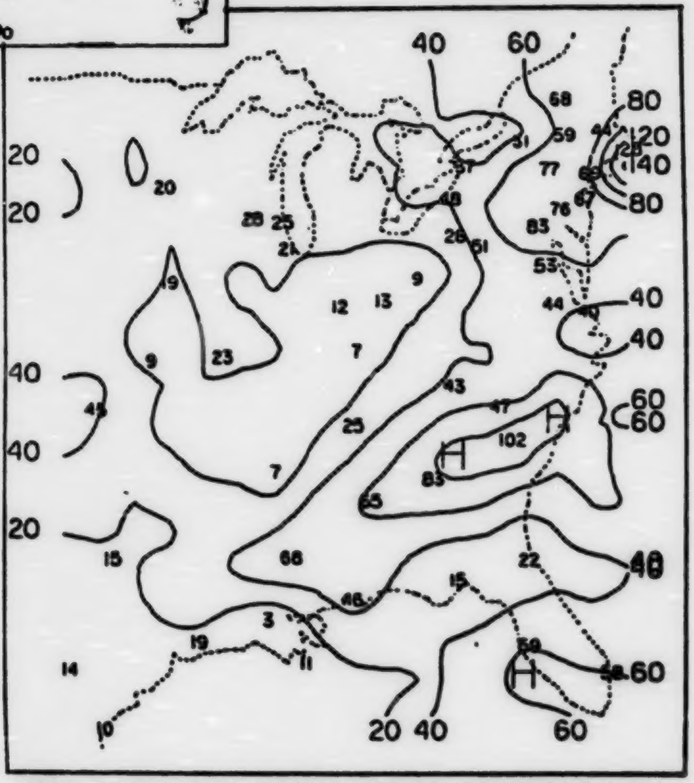
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, SEPTEMBER 12, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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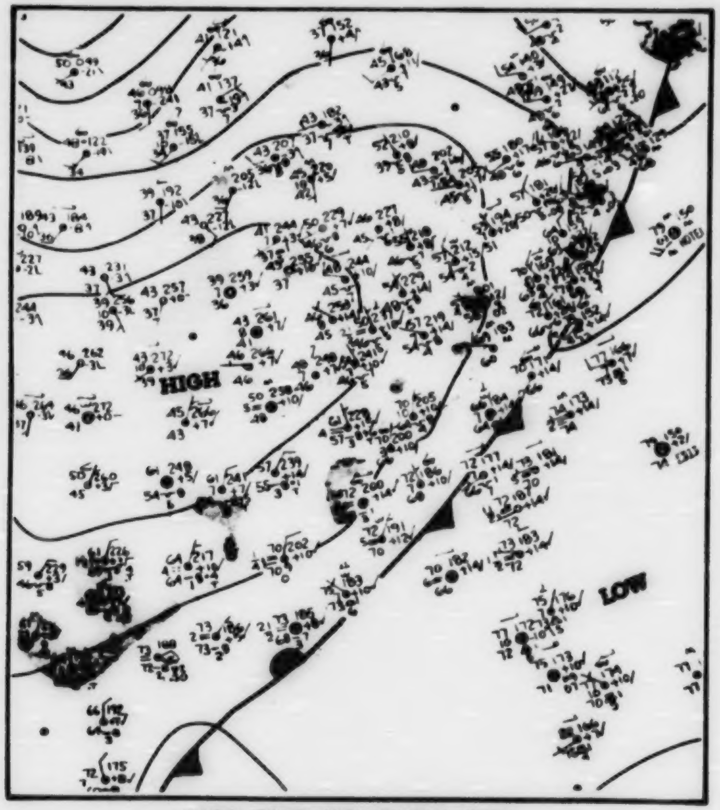
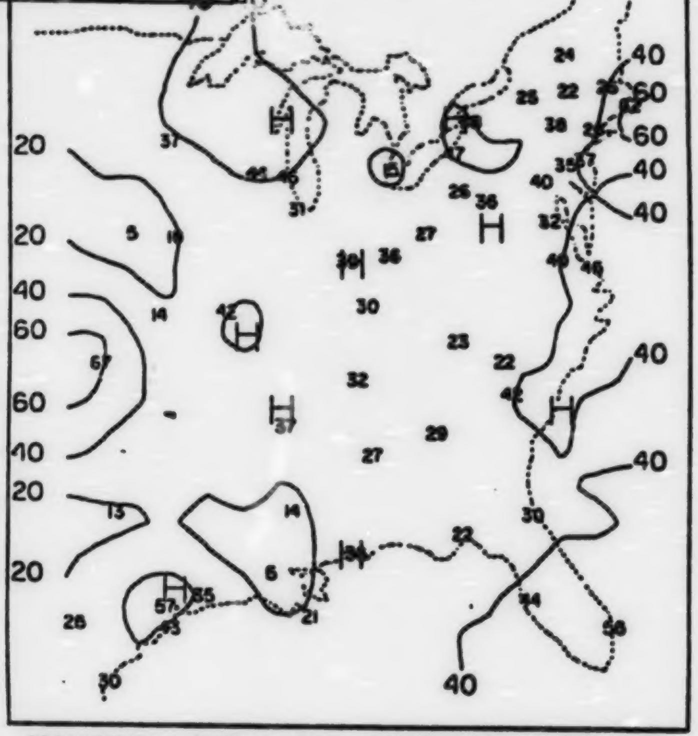
FRIDAY, SEPTEMBER 13, 1974

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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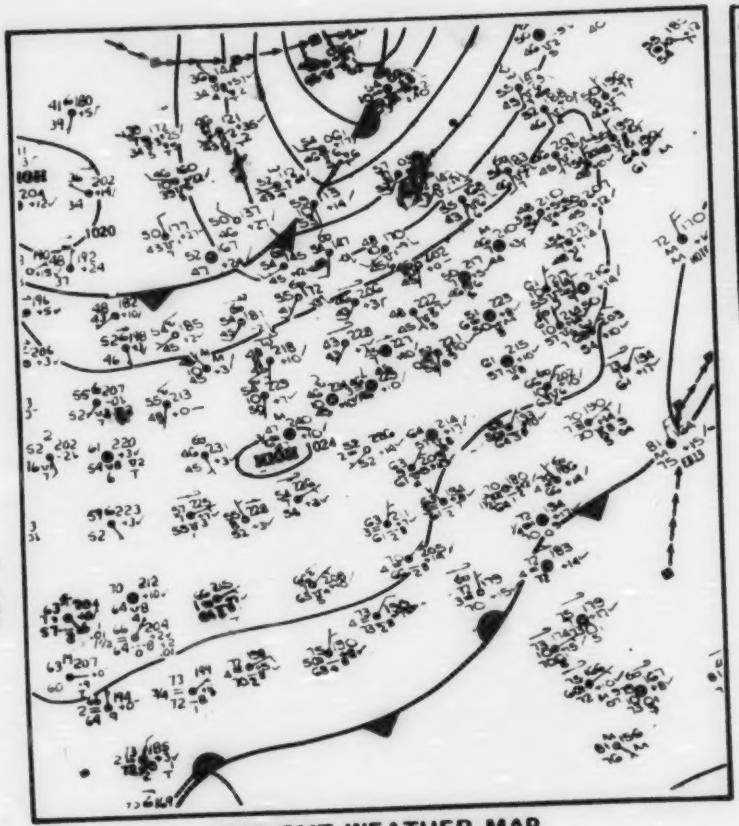
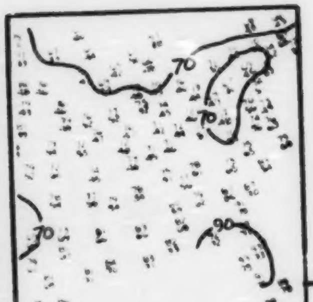
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

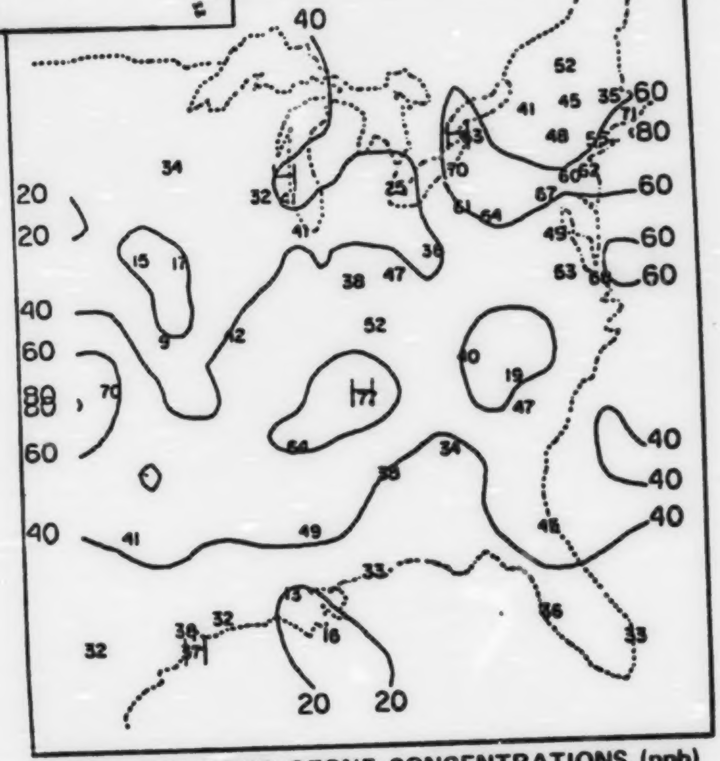
SATURDAY, SEPTEMBER 14, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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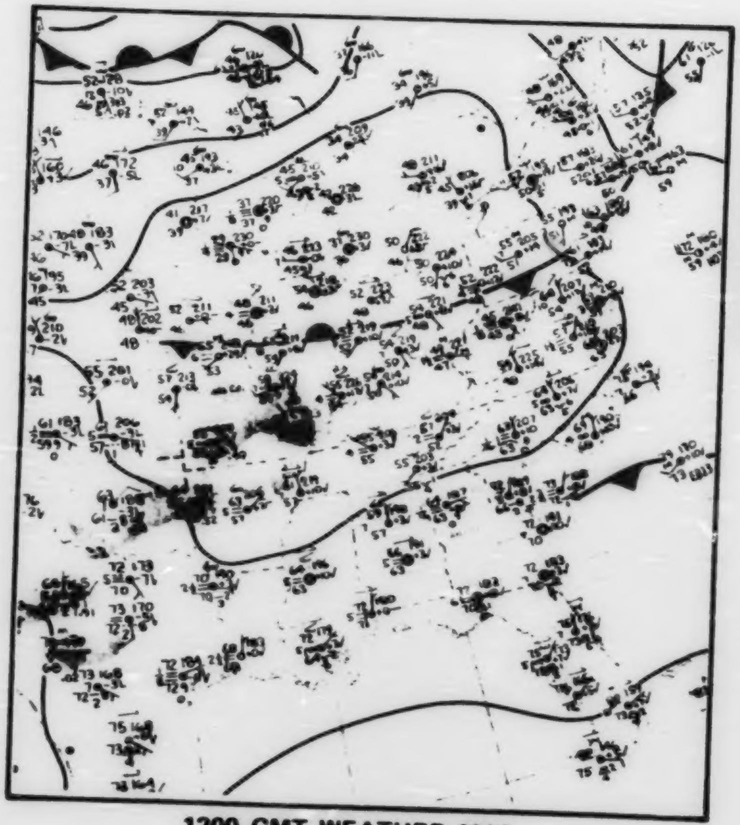
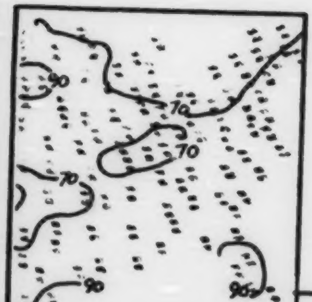
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, SEPTEMBER 15, 1974



1200 GMT WEATHER MAP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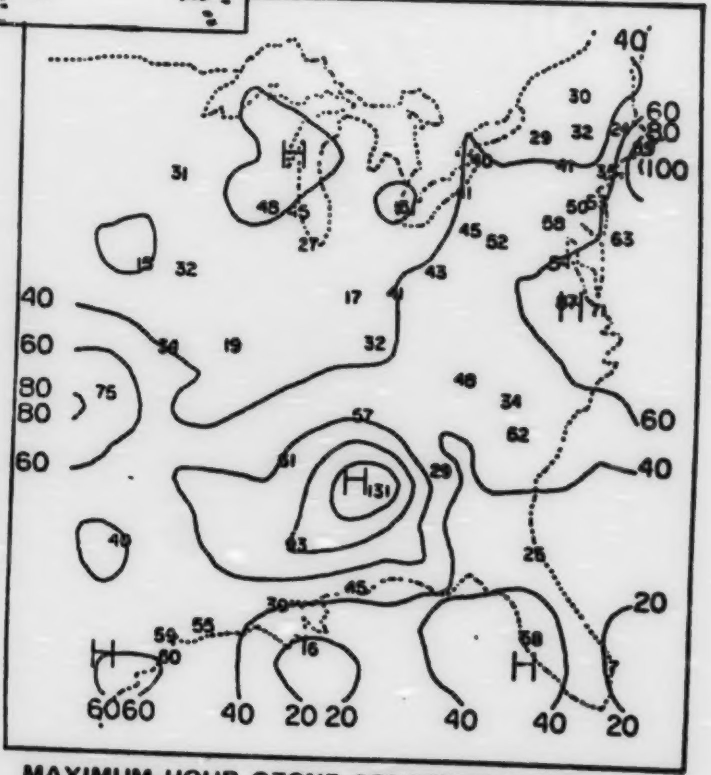
90

MAXIMUM-
MINIMUM
TEMPERATURE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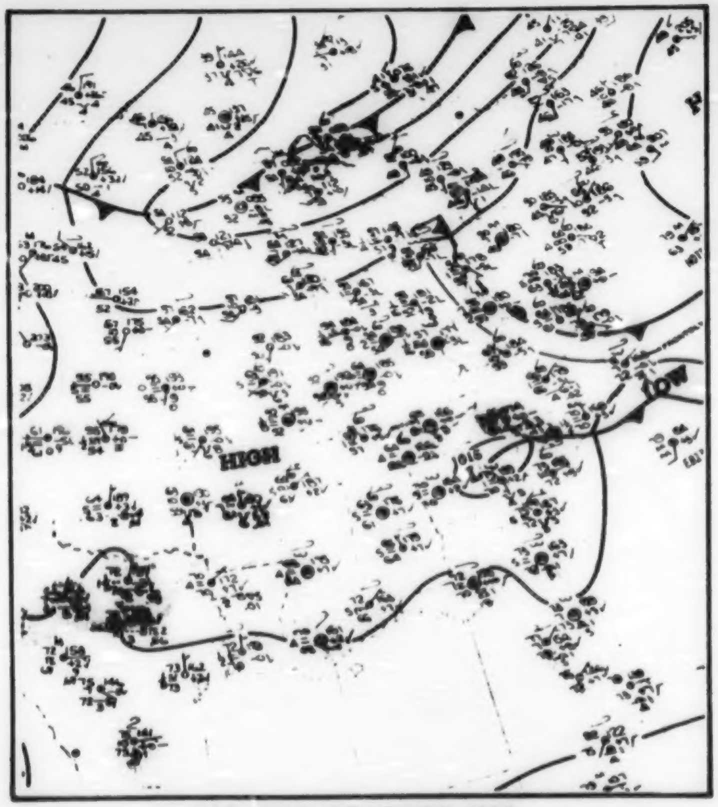
131
75

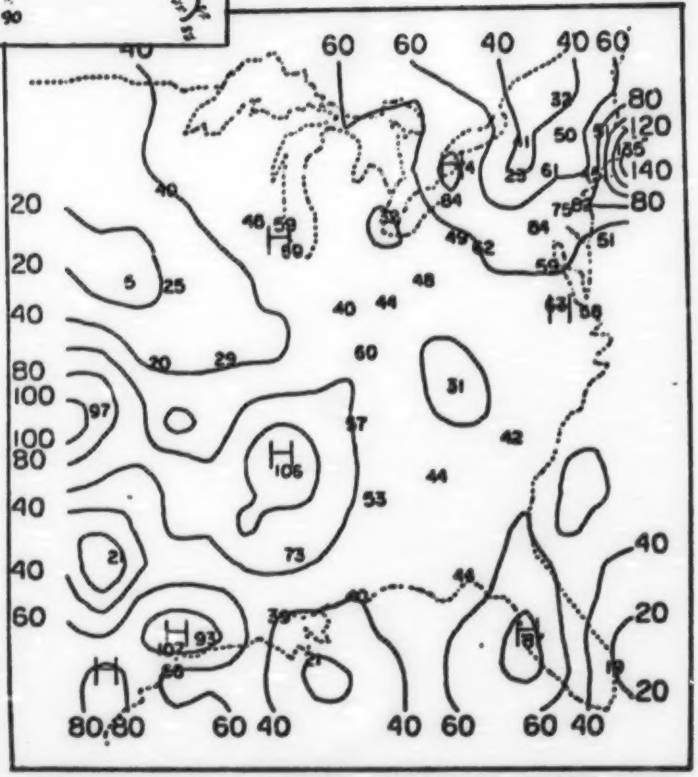
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, SEPTEMBER 16, 1974


HIGH
LOW
1015

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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44
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19
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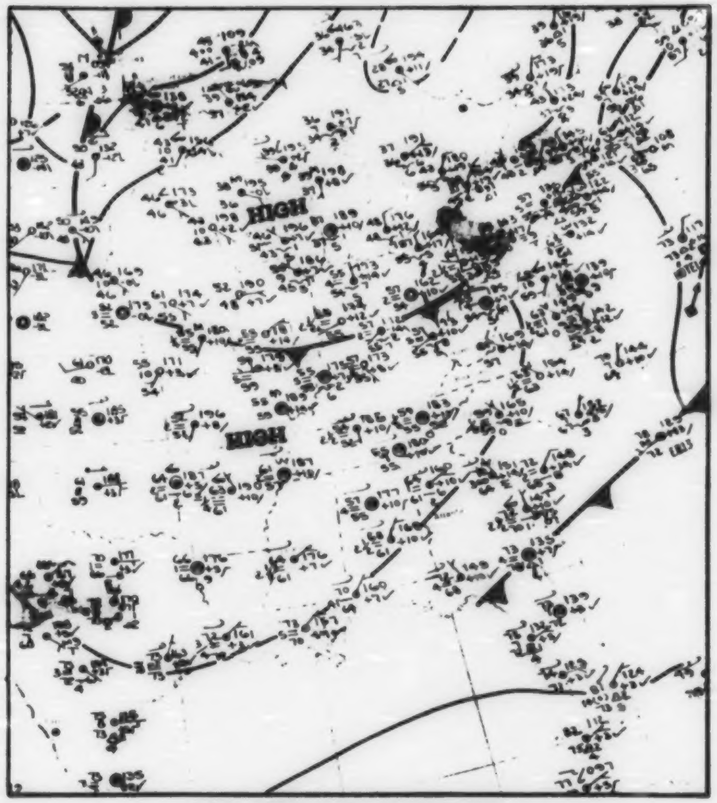
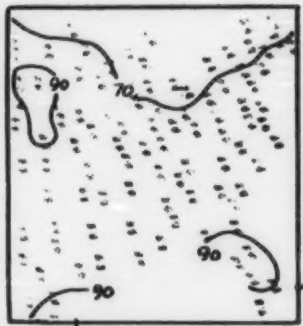
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

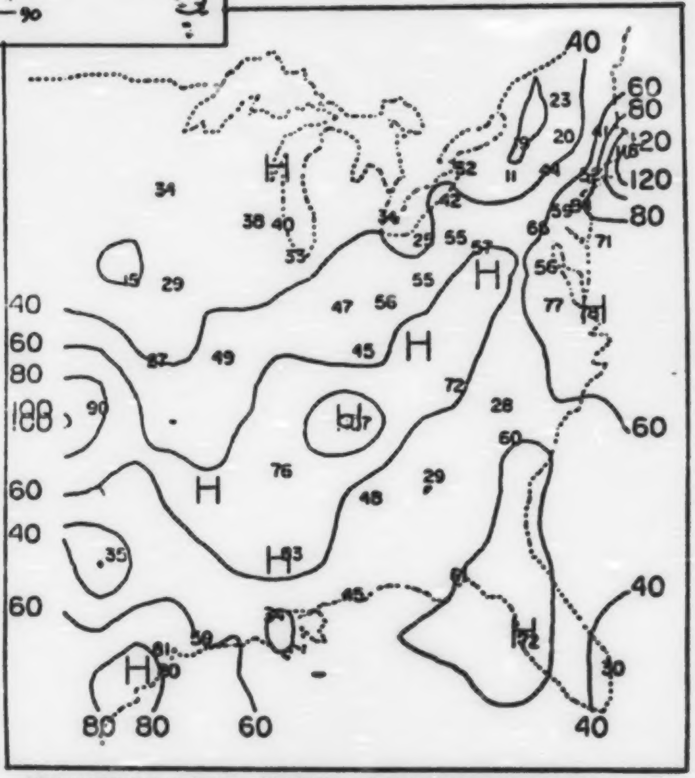
TUESDAY, SEPTEMBER 17, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE



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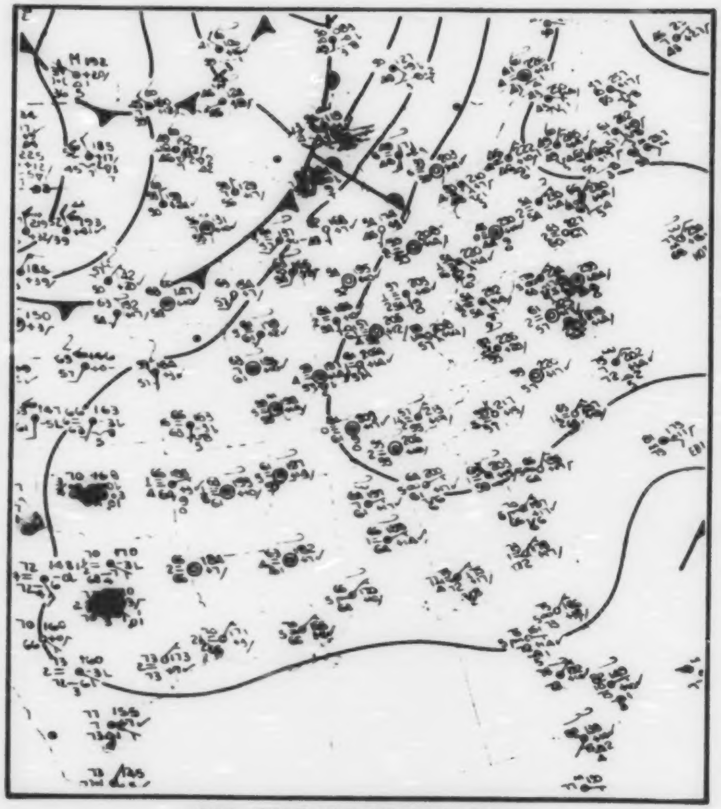
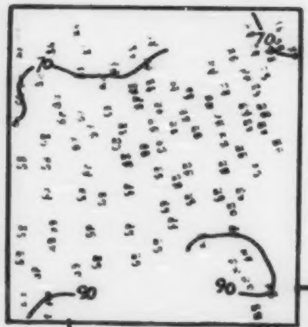
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

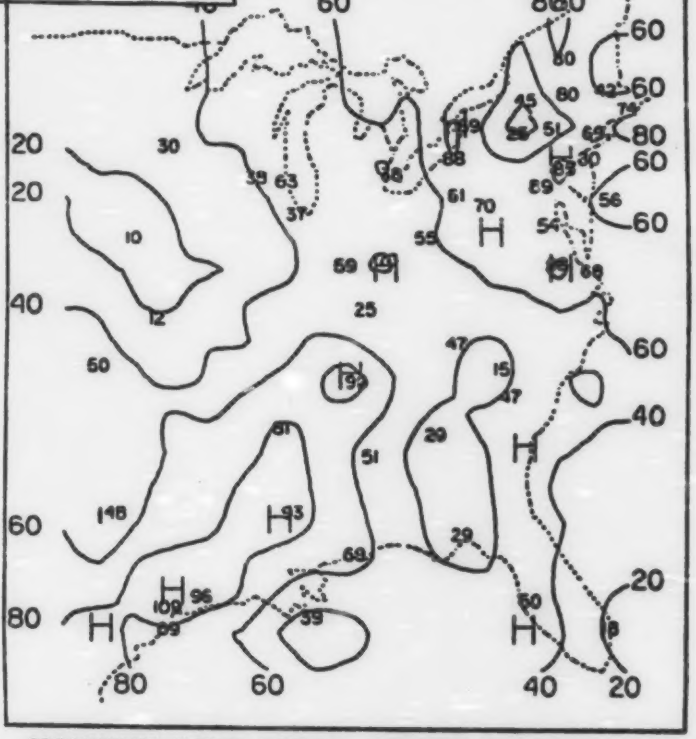
WEDNESDAY, SEPTEMBER 18, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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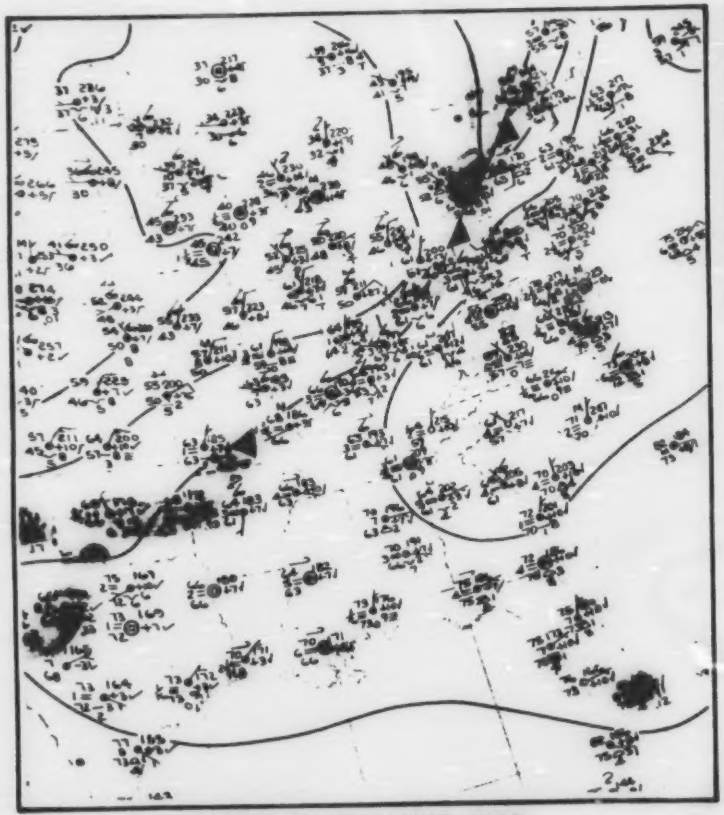
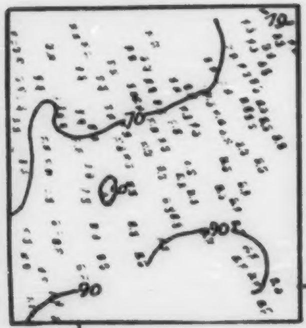
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

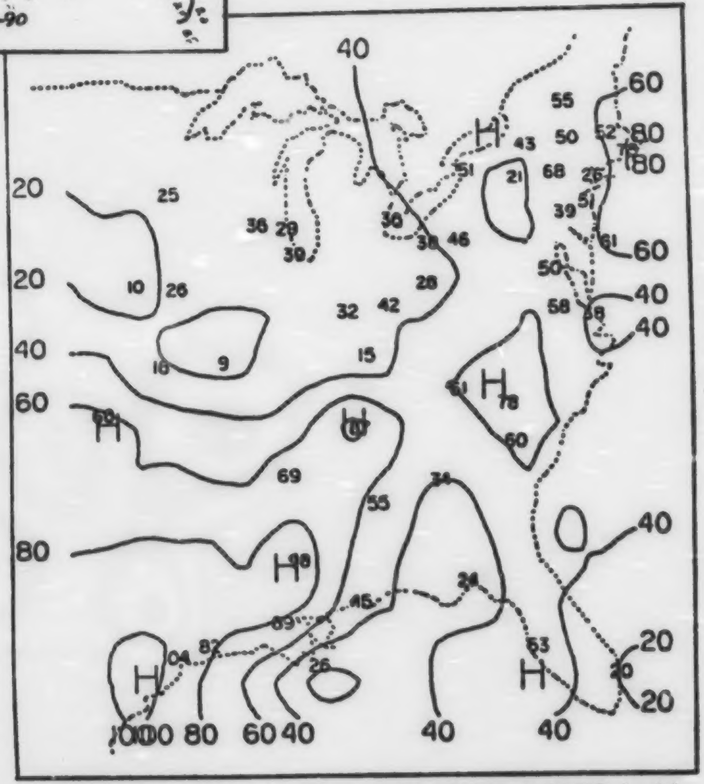
THURSDAY, SEPTEMBER 19, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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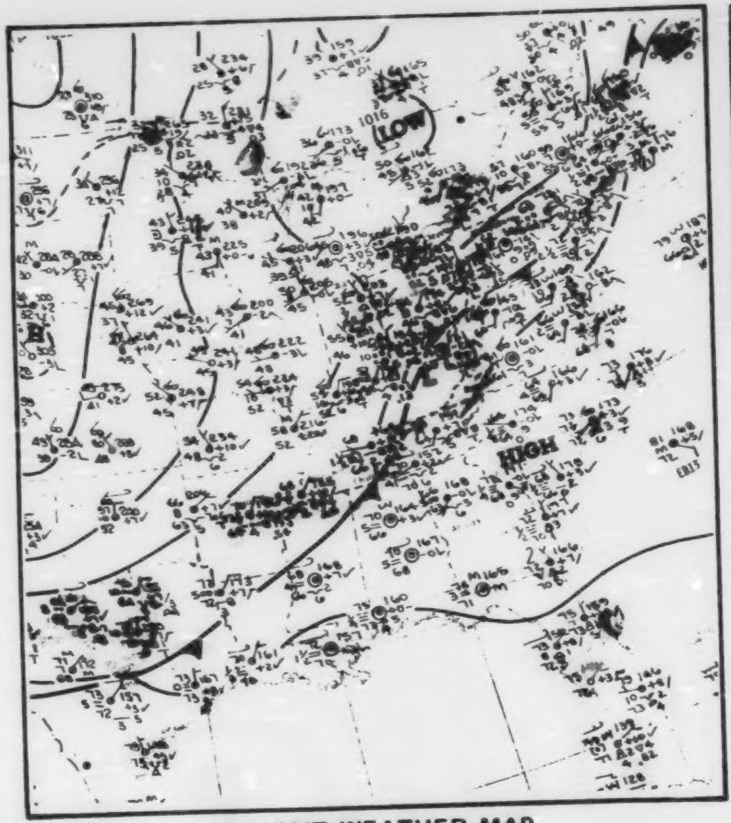
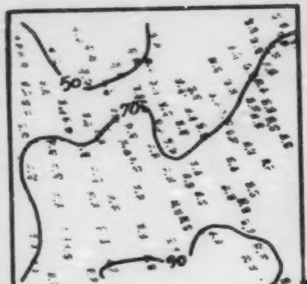
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

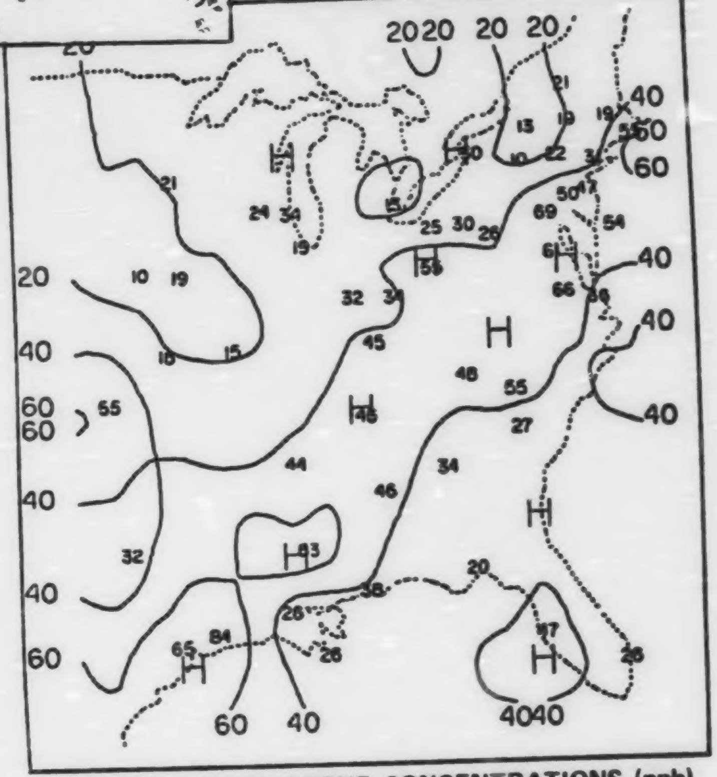
FRIDAY, SEPTEMBER 20, 1974


LOW
1016
HIGH

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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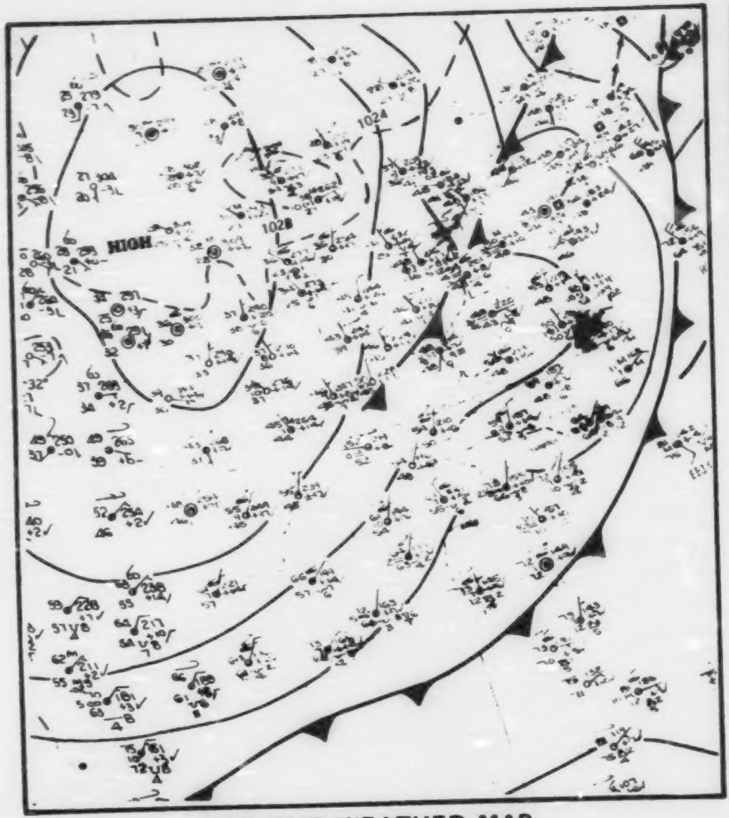
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, SEPTEMBER 21, 1974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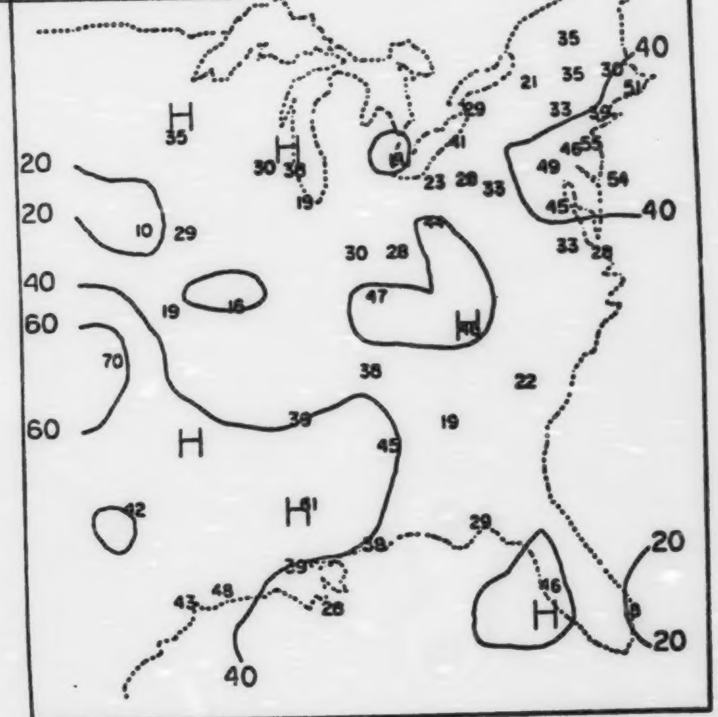
1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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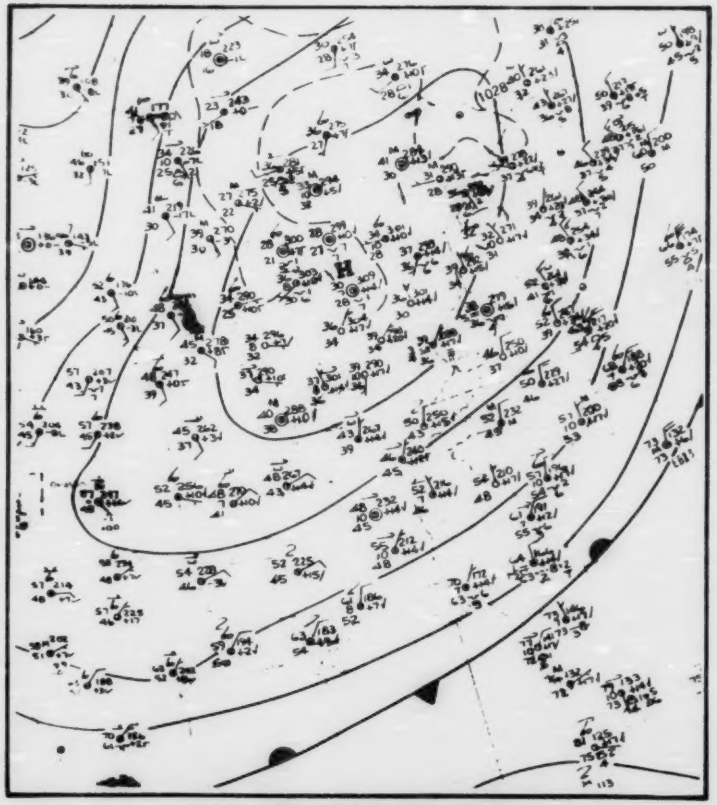
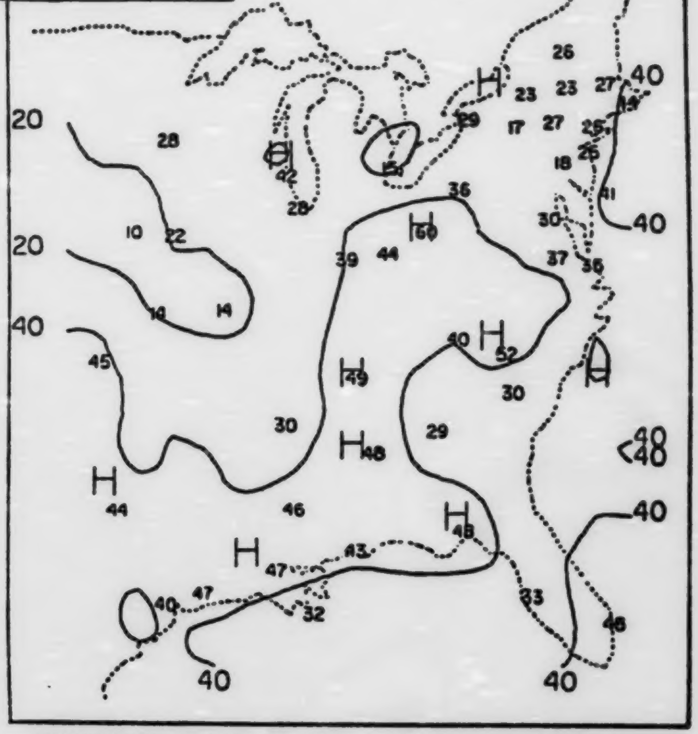
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, SEPTEMBER 22, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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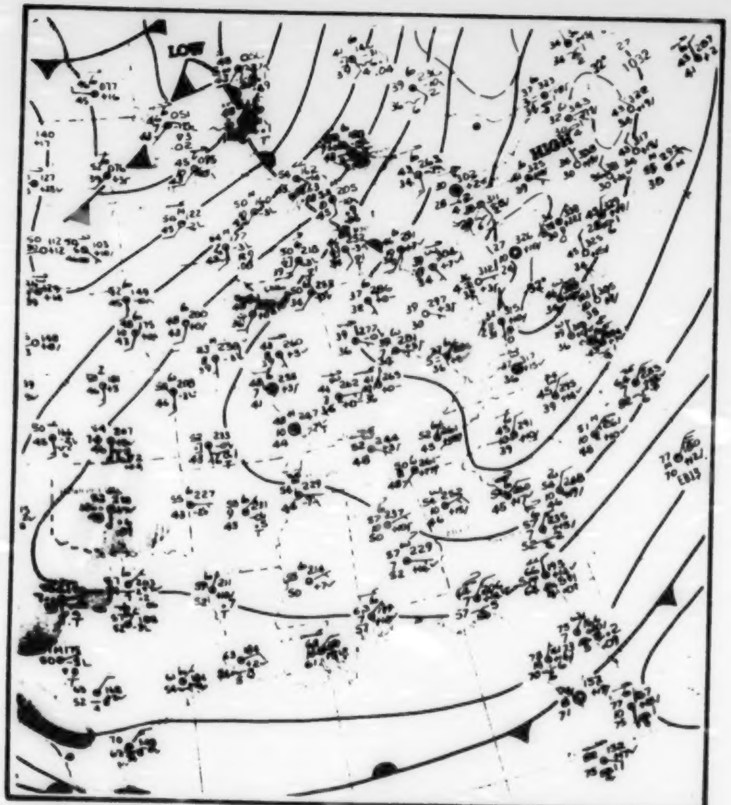
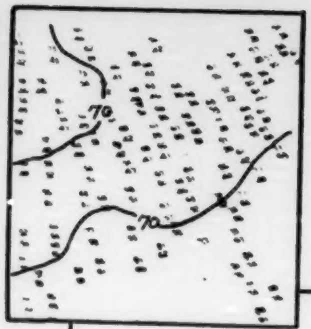
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

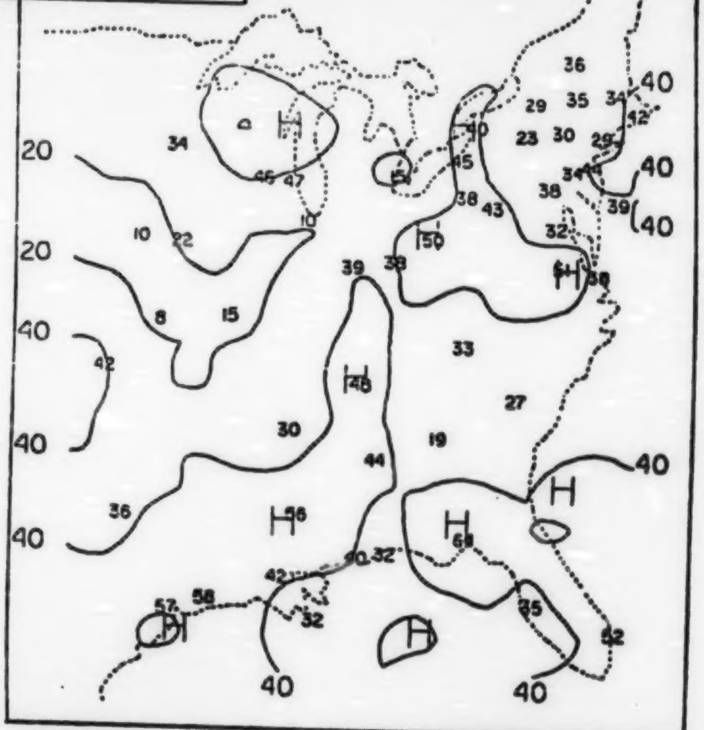
MONDAY, SEPTEMBER 23, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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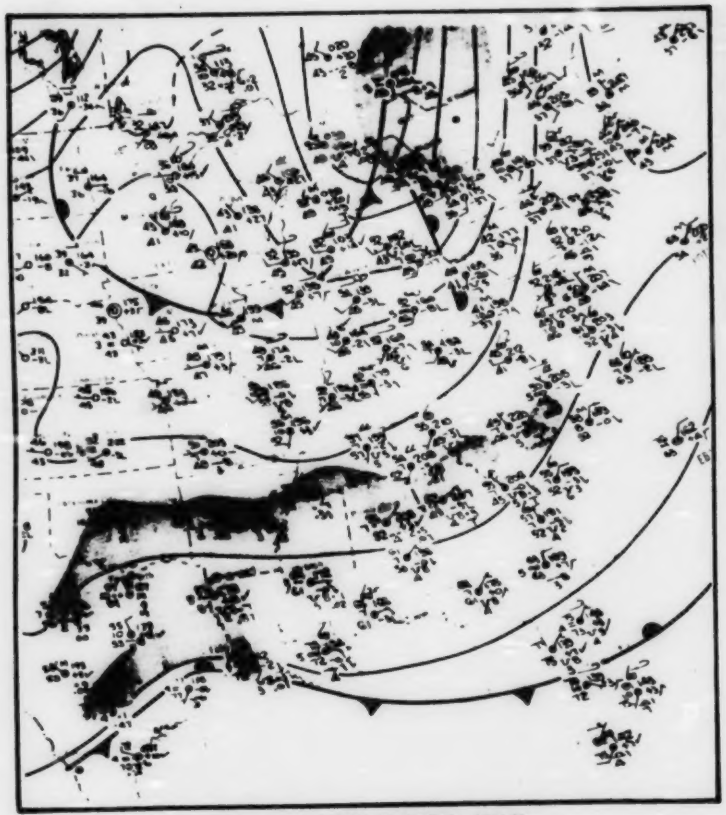
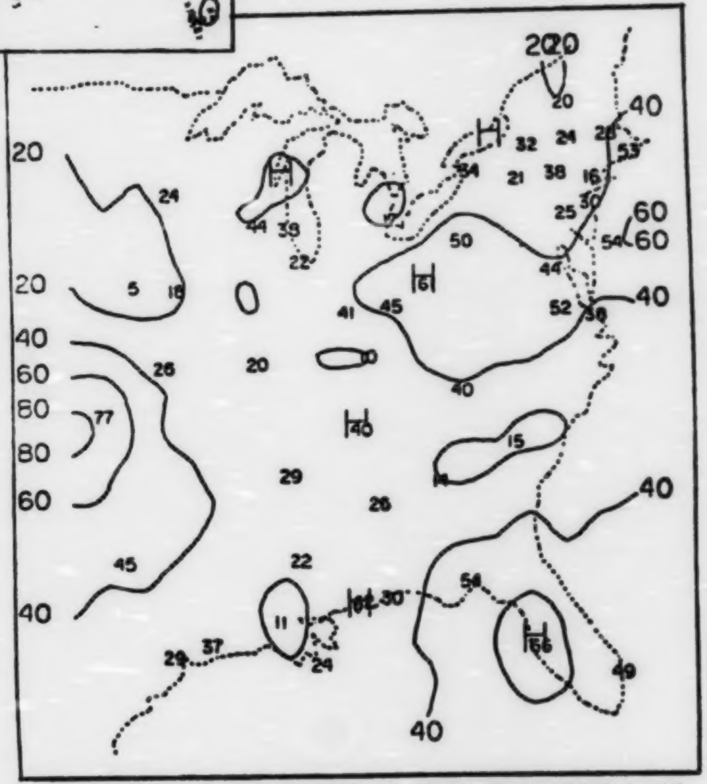
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, SEPTEMBER 24, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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77
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53
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29
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15
14
22
11
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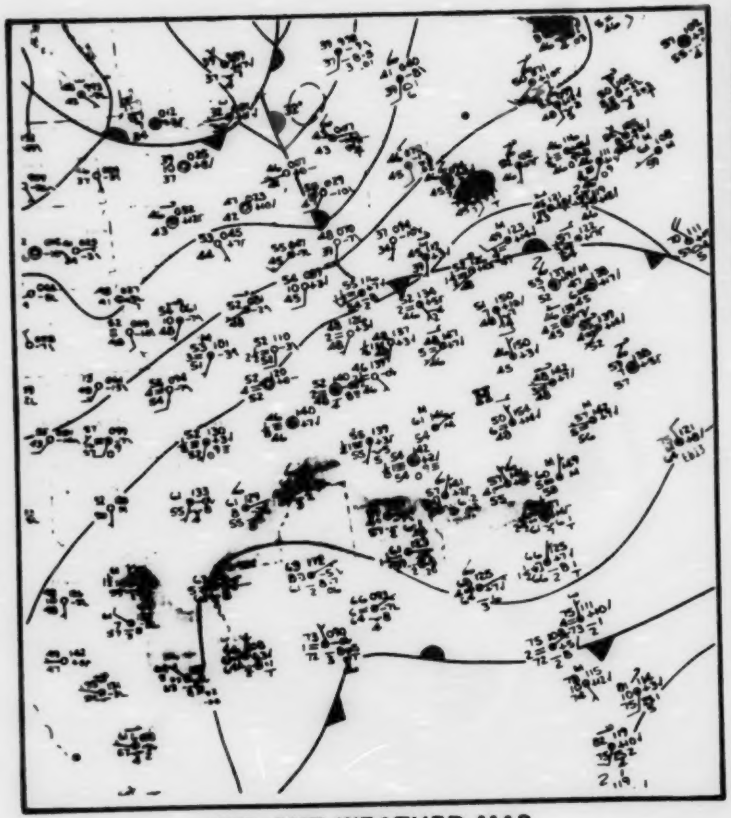
30
24
37
29
54
66
49

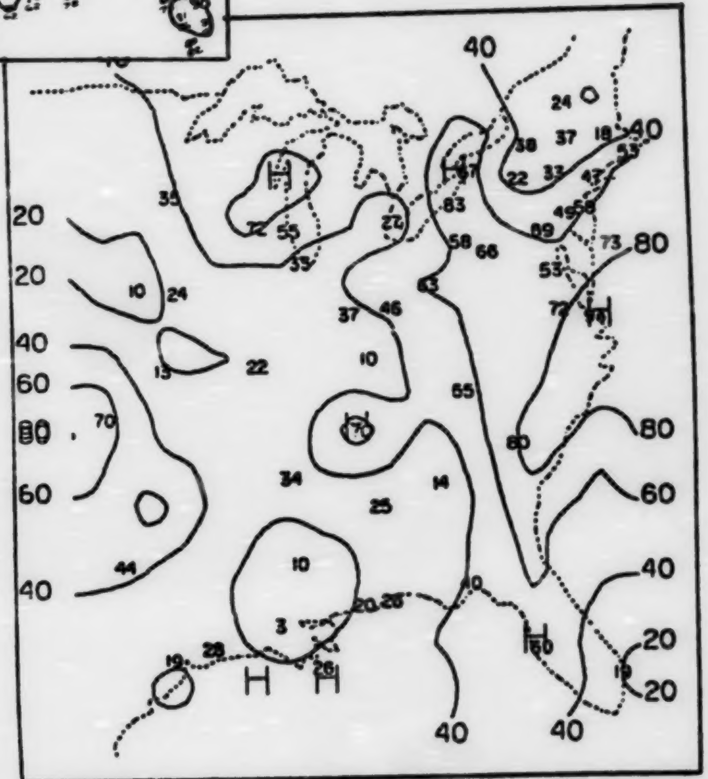
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, SEPTEMBER 25, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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38
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47
53
35
72
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22
57
83
58
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69
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73
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20
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63
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80
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34
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14
80
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44
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3
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26
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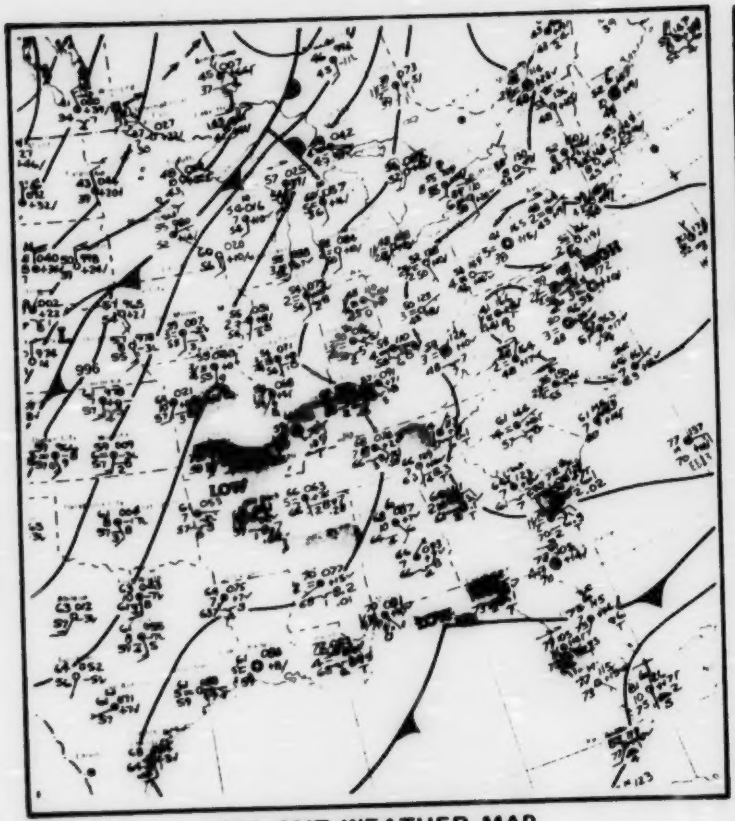
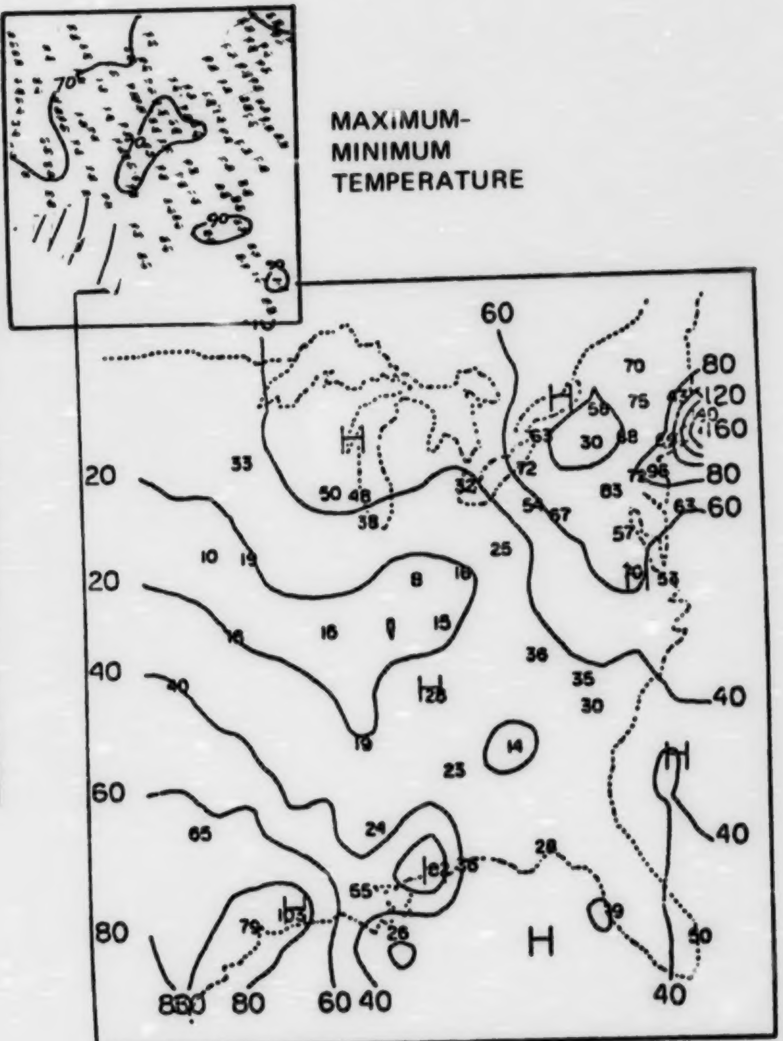
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, SEPTEMBER 26, 1974



1200 GMT WEATHER MAP



MAXIMUM-MINIMUM TEMPERATURE

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68
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72
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83
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36
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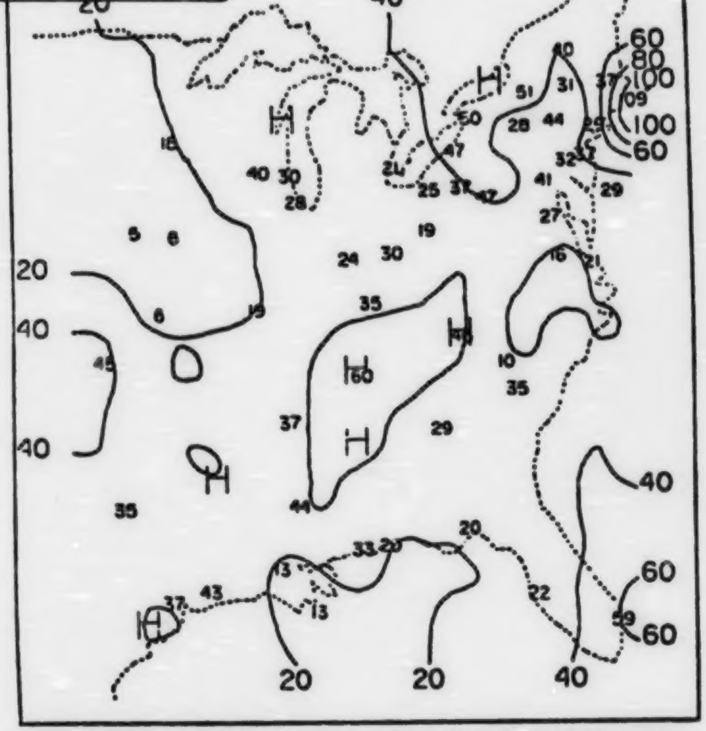
10
19
8
16
15
16
16
128
19
14
23
24
162
36
55
28
26
39
30
65
79
103

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, SEPTEMBER 27, 1974

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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60
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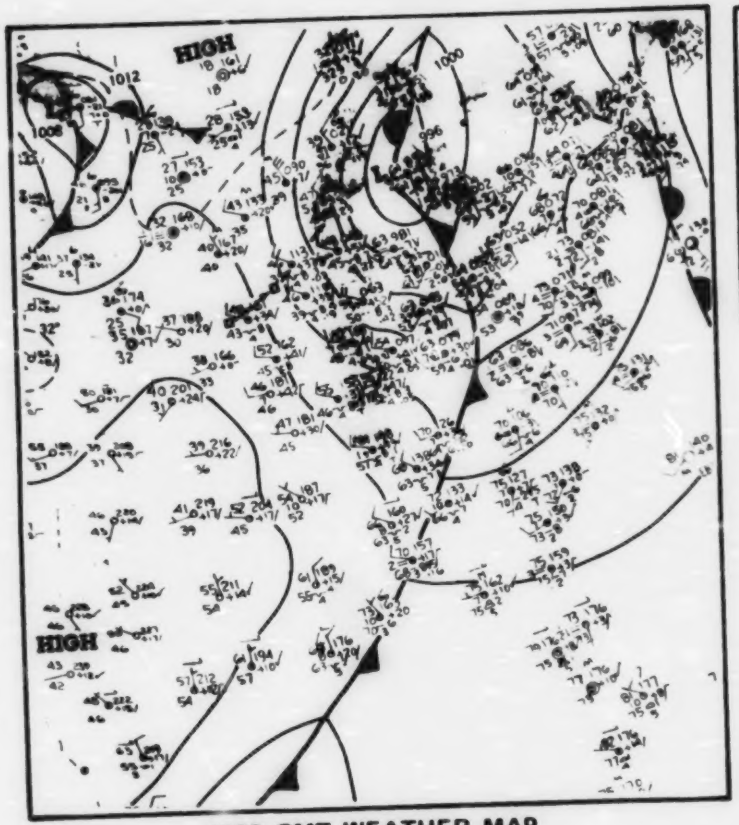
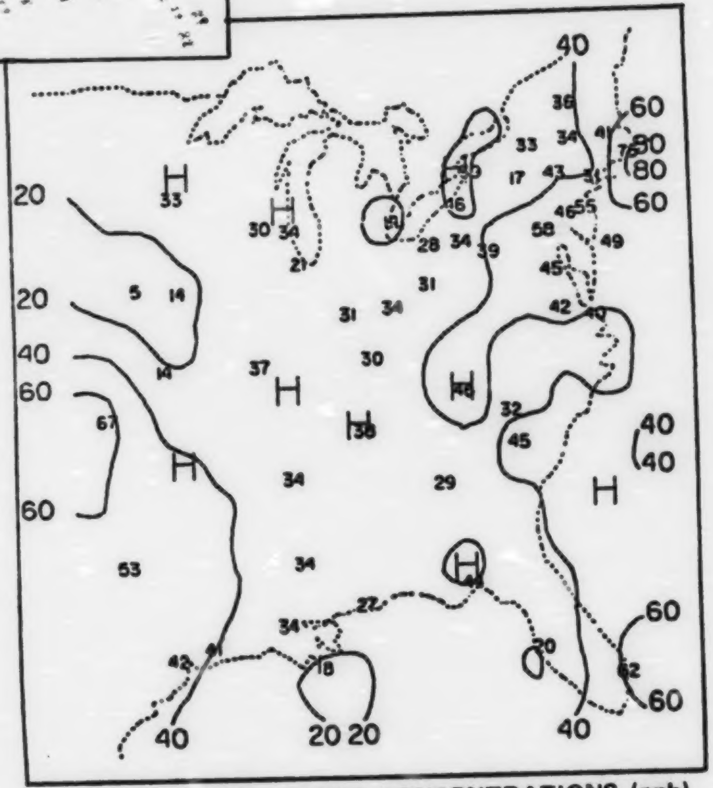
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, SEPTEMBER 28, 1974


HIGH
1012
1008
1000
996
HIGH

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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49
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34
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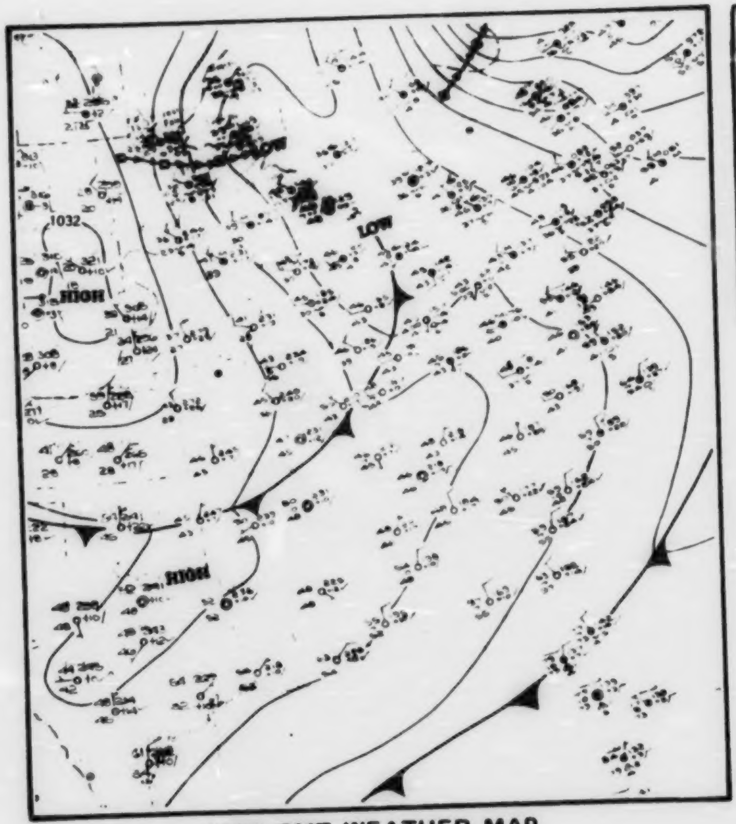
42
20
62

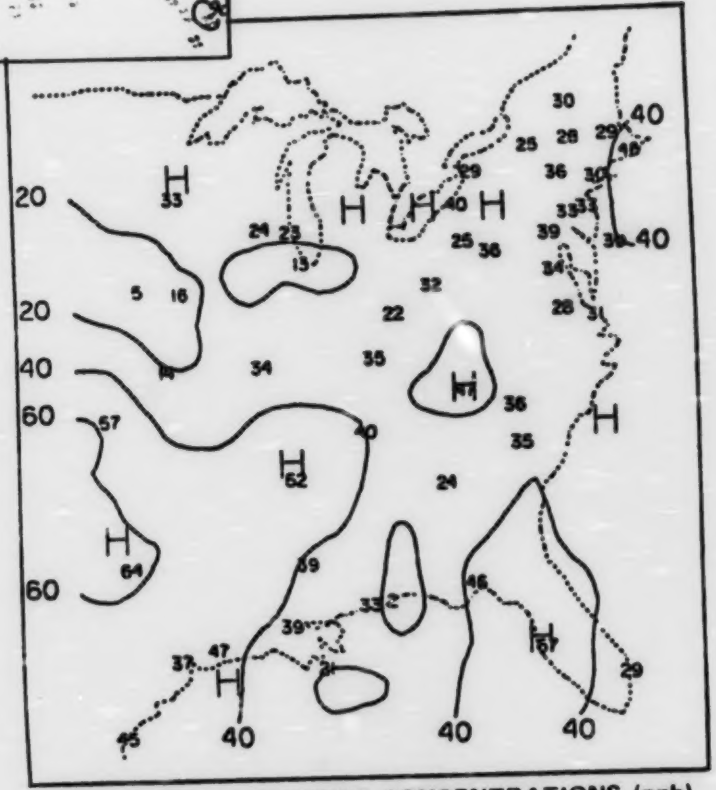
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, SEPTEMBER 29, 1974


HIGH
LOW
LOW
HIGH
1032

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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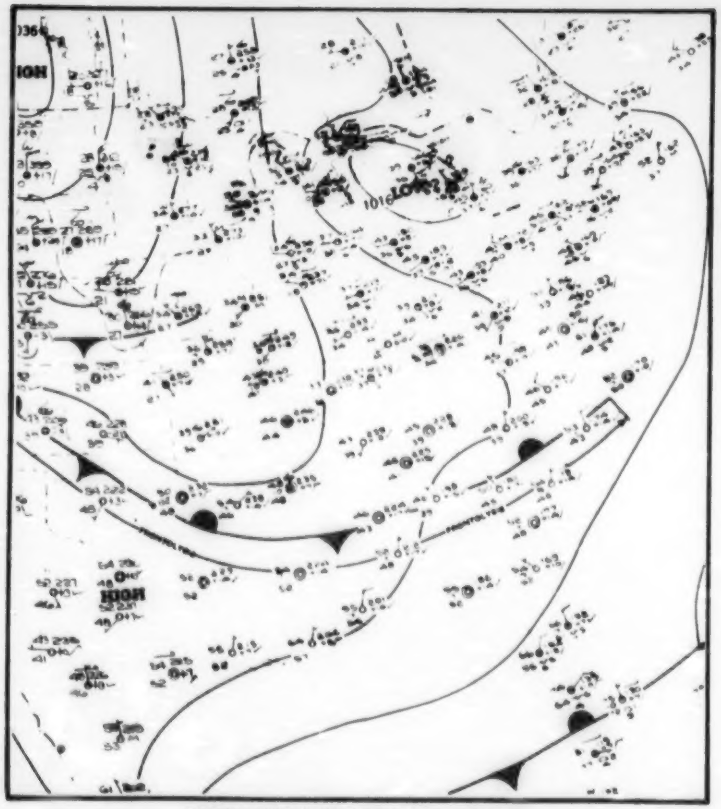
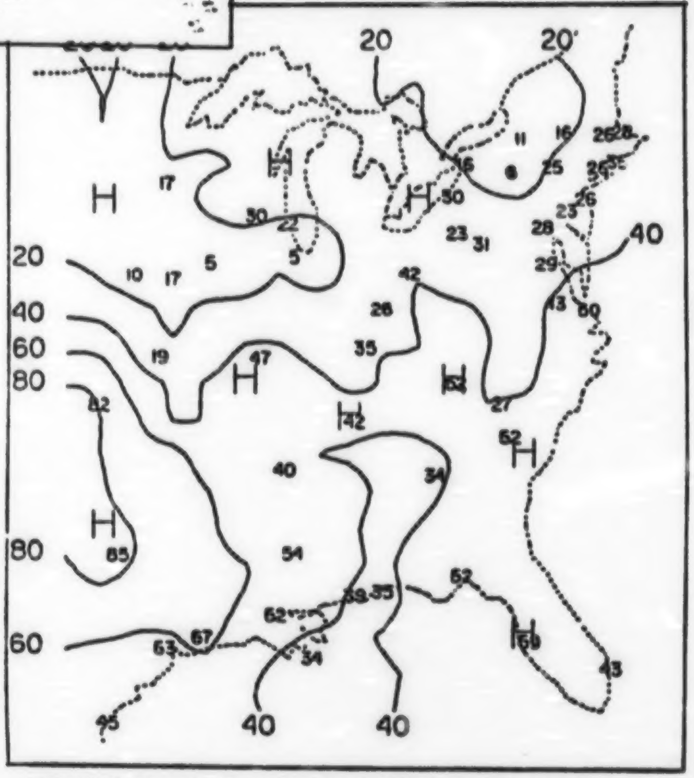
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, SEPTEMBER 30, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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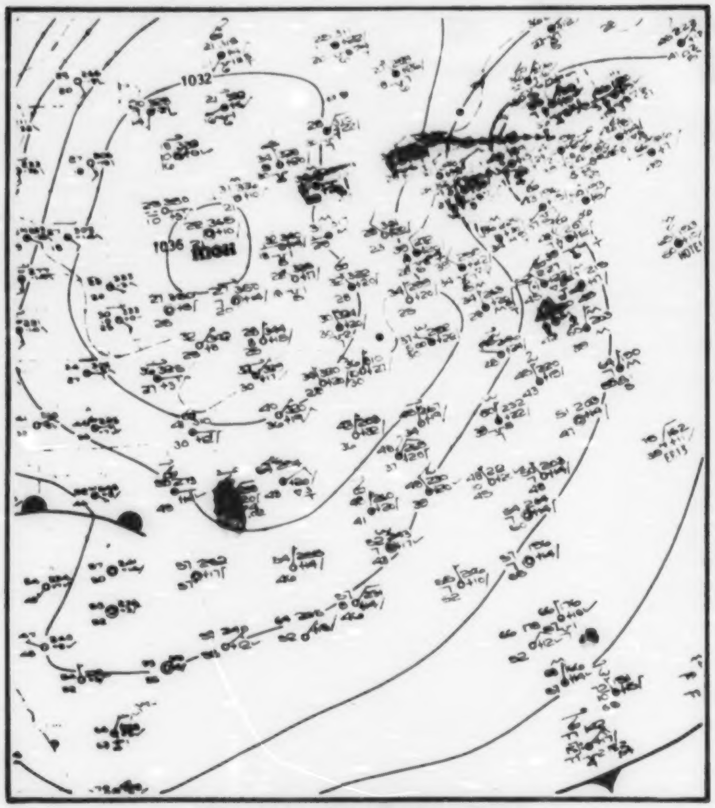
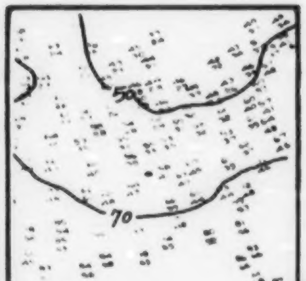
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

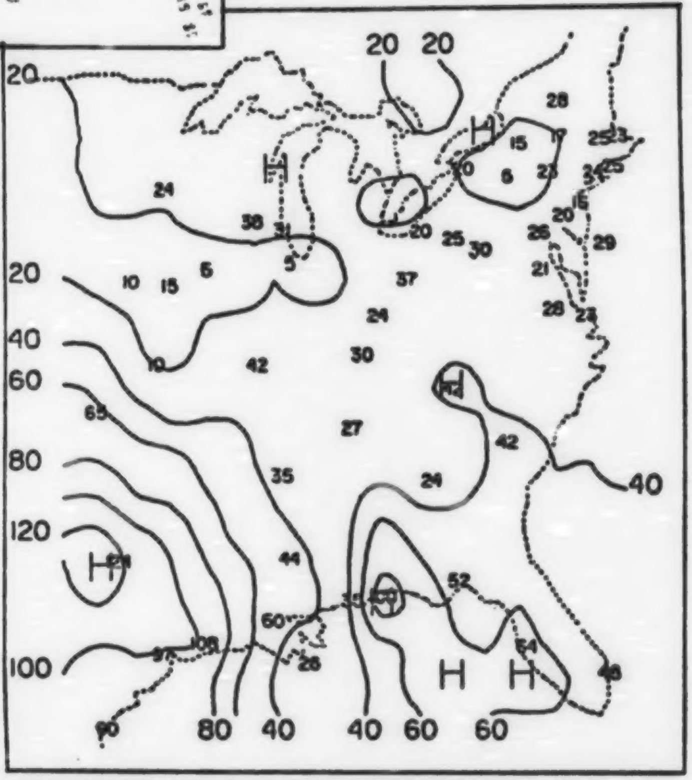
TUESDAY, OCTOBER 1, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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52
64
48
28
15
17
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23
34
25
20
6
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25
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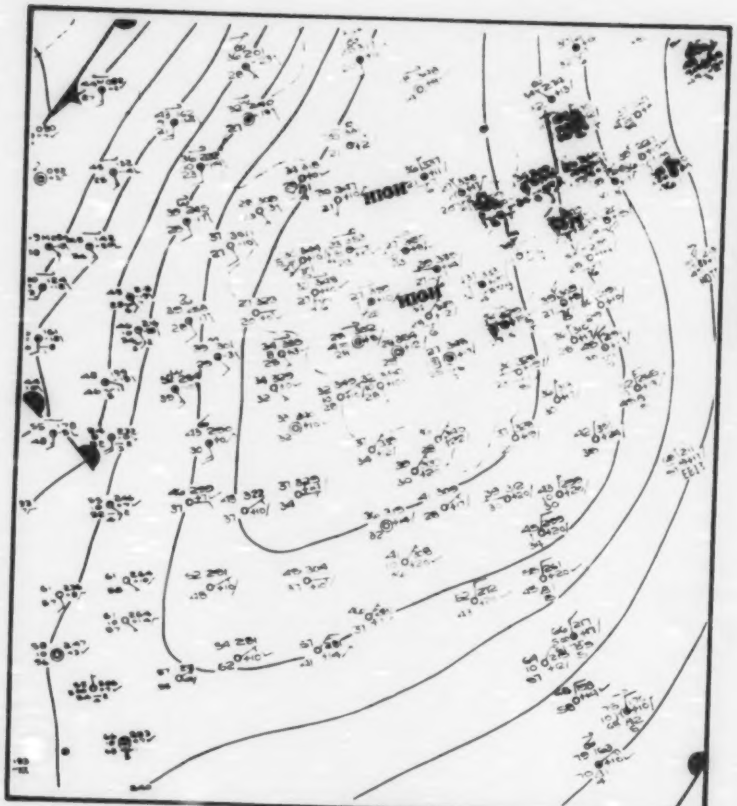
26
15
20
29
21
28
23
90
97
108
26

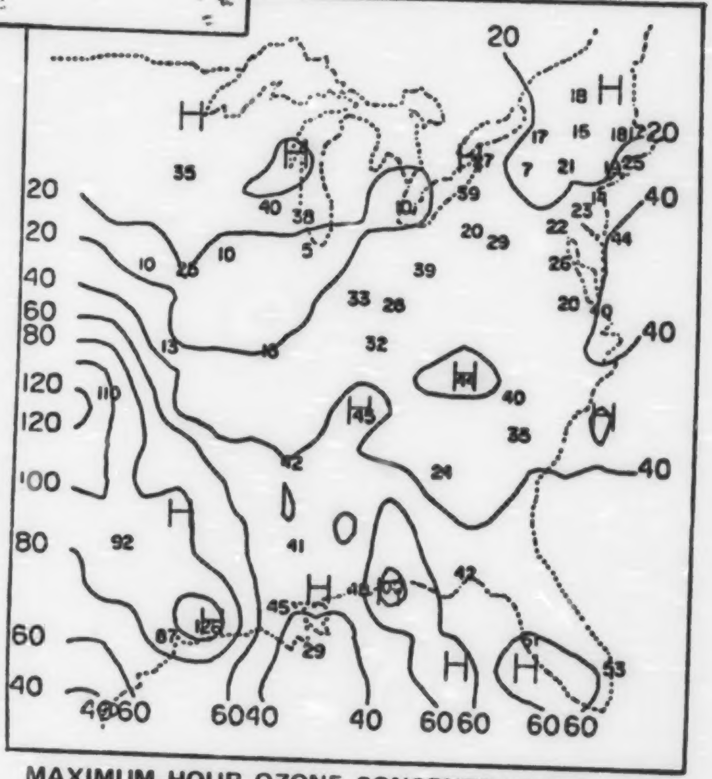
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, OCTOBER 2, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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10
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33
28
32
13
18
110
45
42
40
35
24
92
41
42
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29
67
125
53
18
15
17
7
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22
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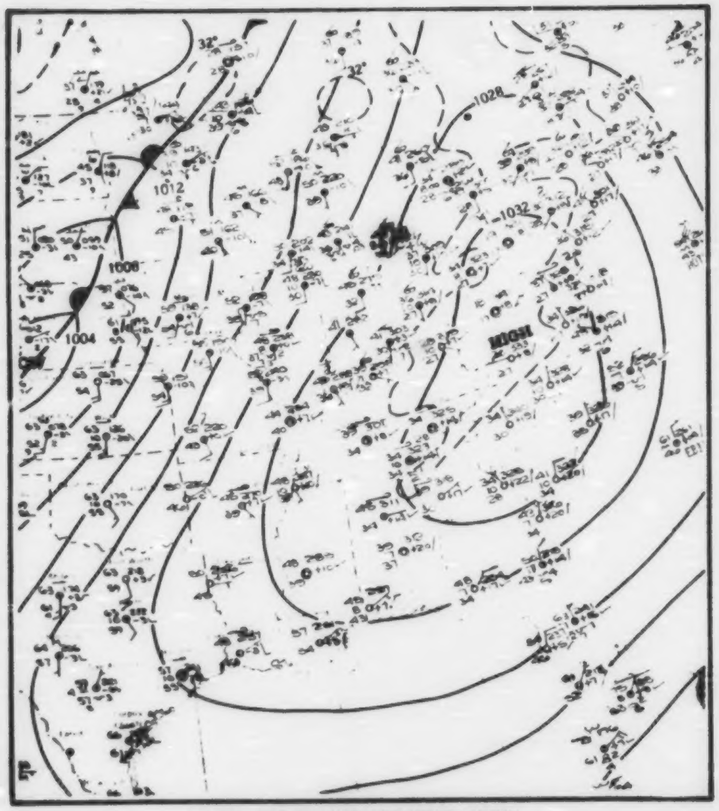
26
20
29
44

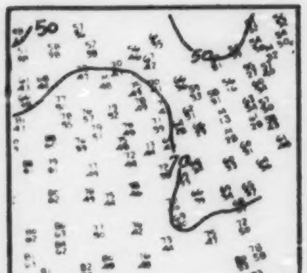
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, OCTOBER 3, 1974

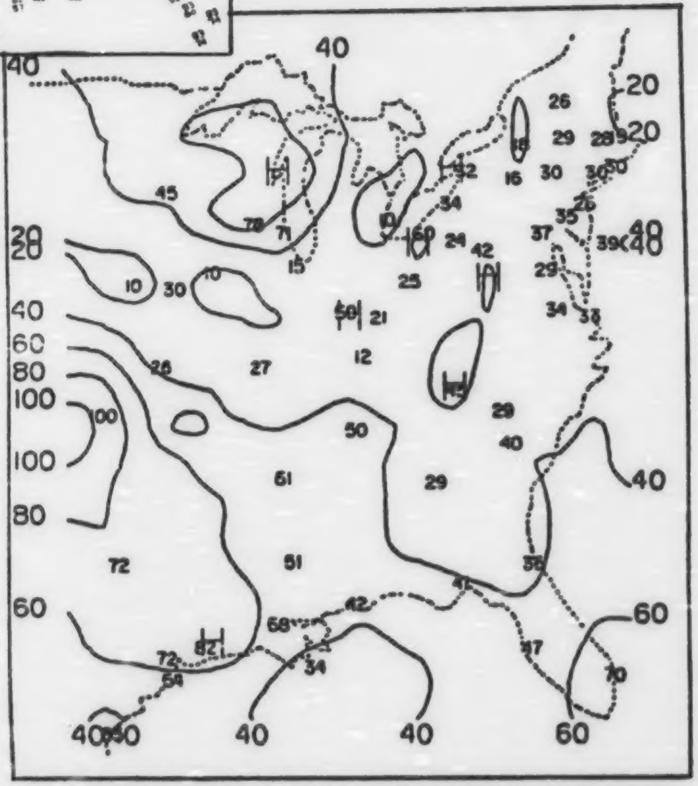


1028
1032
HIGH
1012
1008
1004
32°

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE



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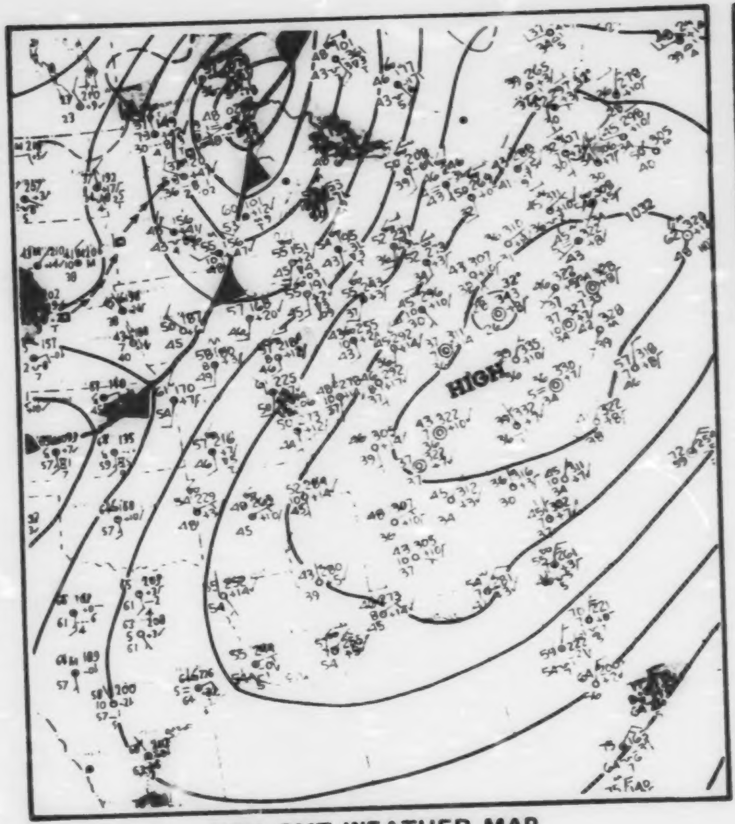
60
40

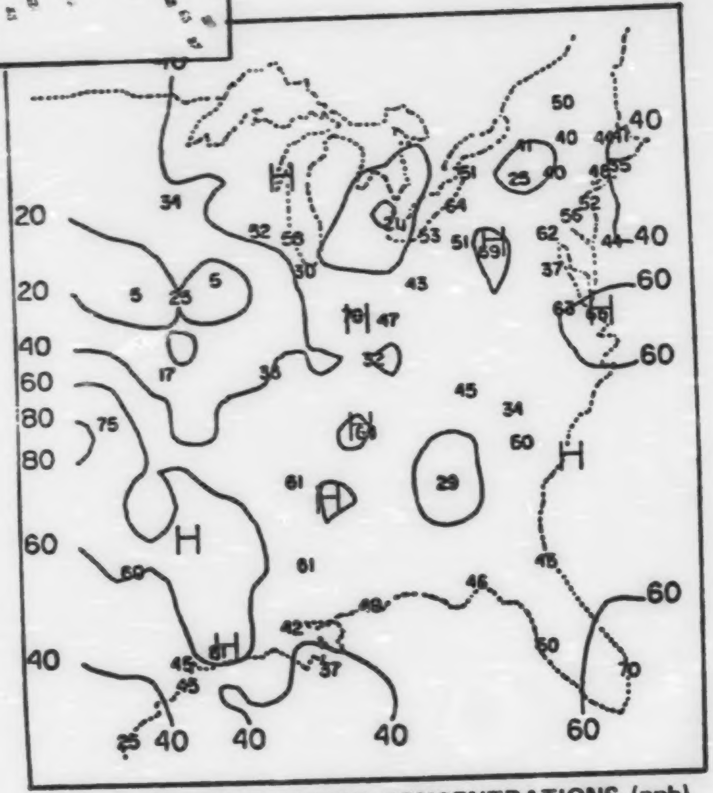
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, OCTOBER 4, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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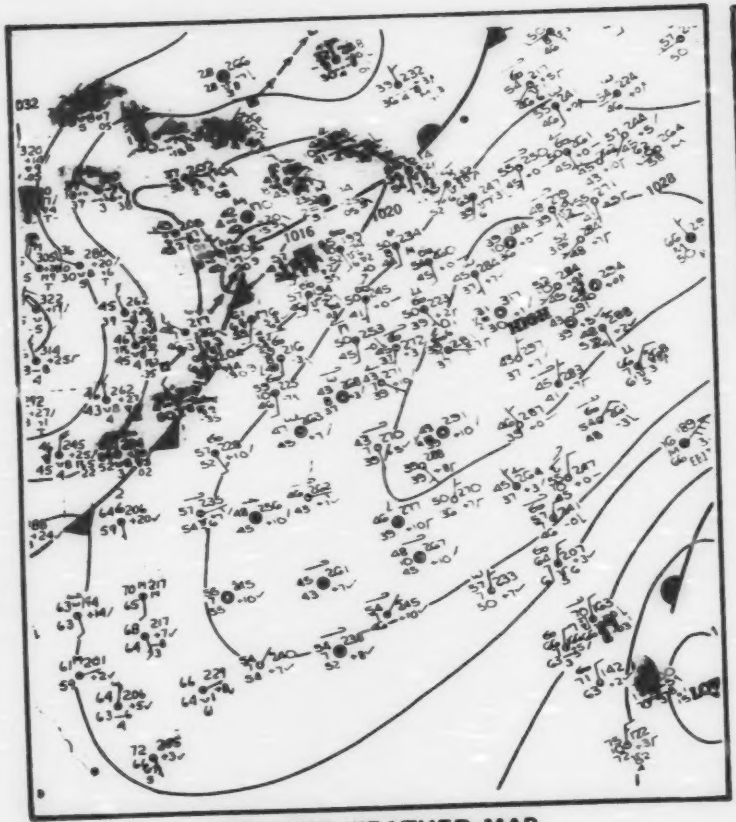
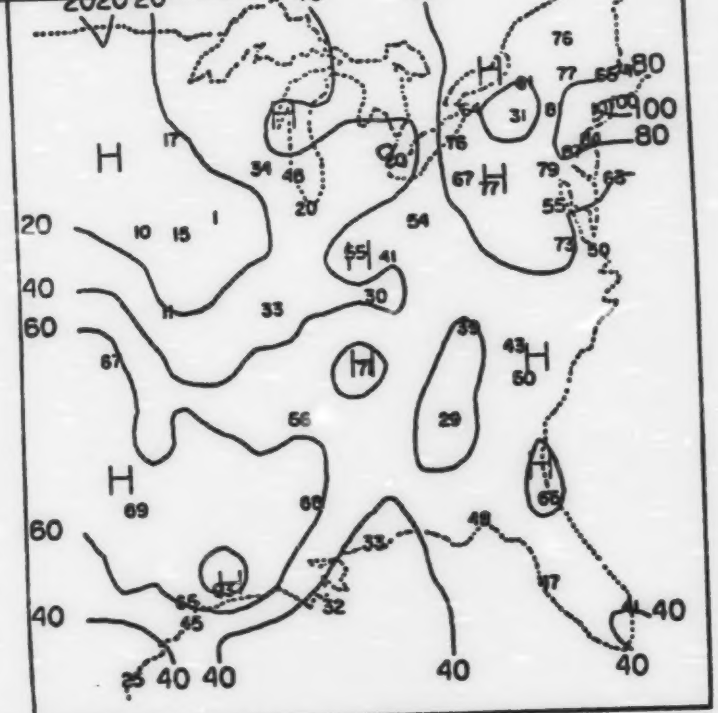
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, OCTOBER 5, 1974


1020
1016
1028
HIGH

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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25 40 40
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43
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39
71
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41
54
60
76
77
31
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67
77
79
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73
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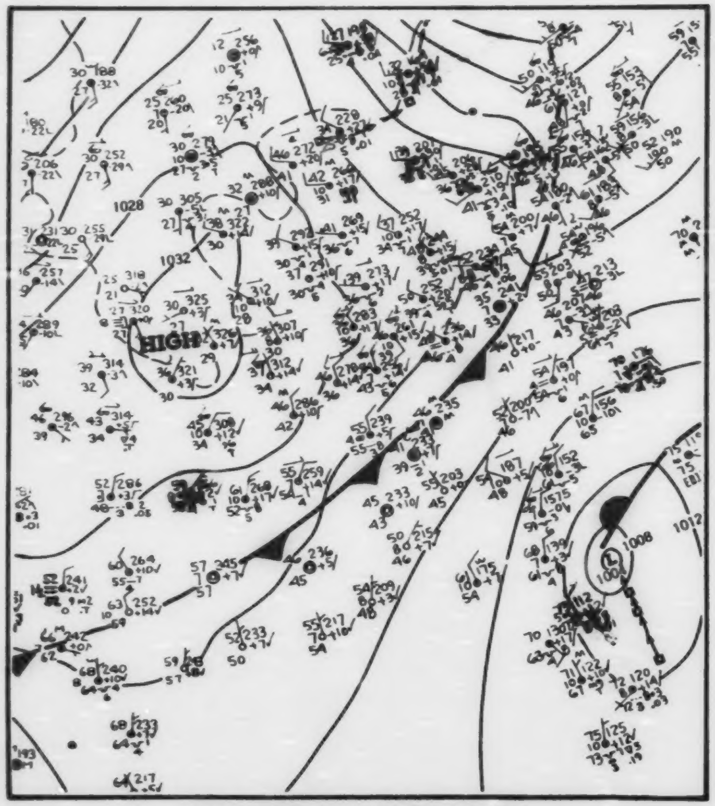
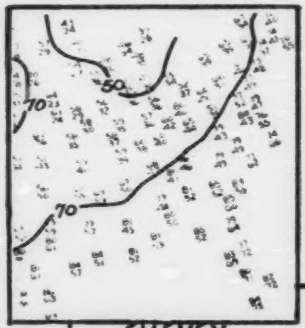
80
100
80

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

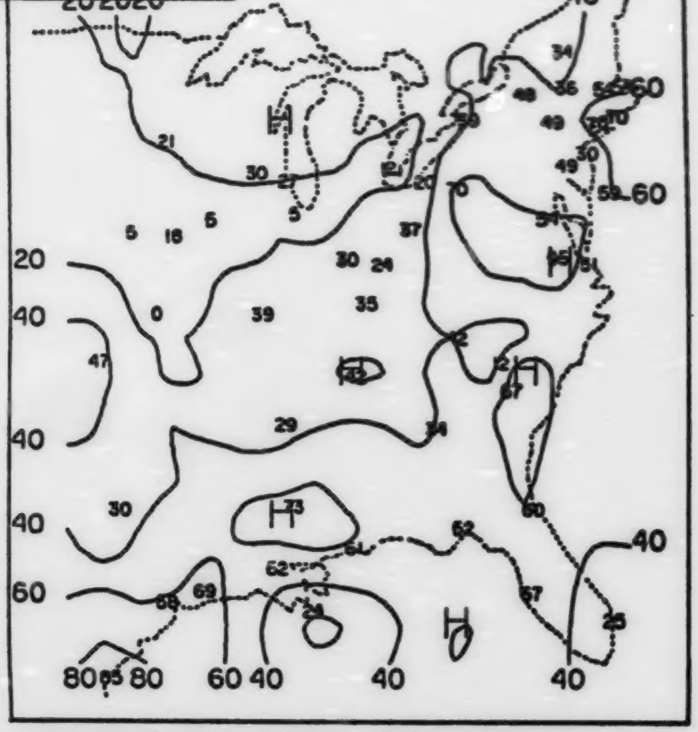
SUNDAY, OCTOBER 6, 1974


HIGH
1028
1032
1008
1012

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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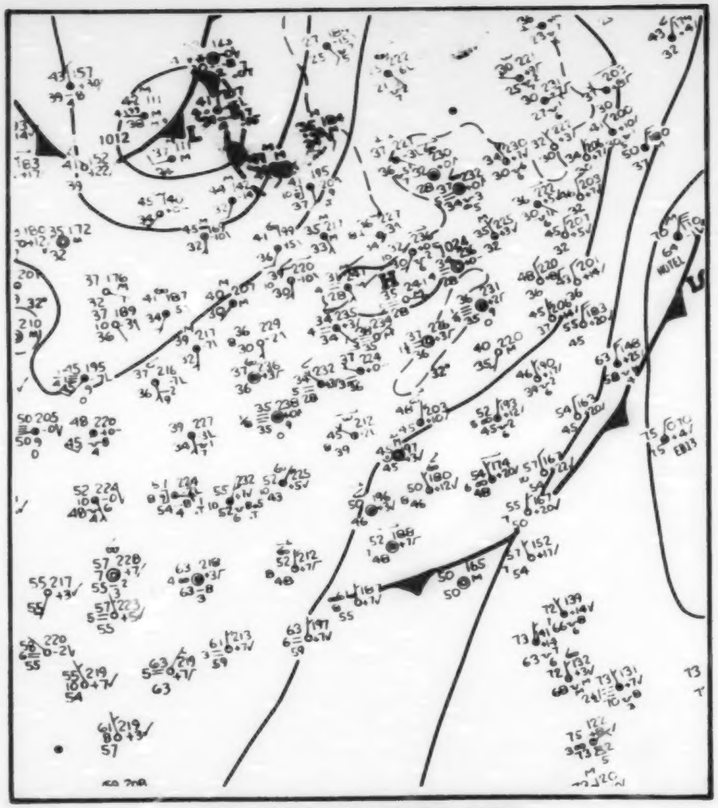
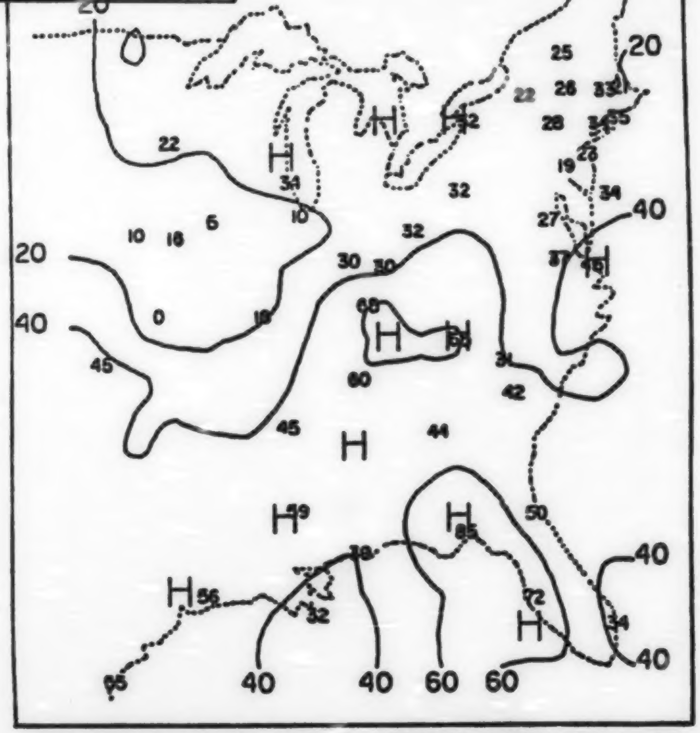
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, OCTOBER 7, 1974


1012
1024
H
L

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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34
55
32
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19
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16
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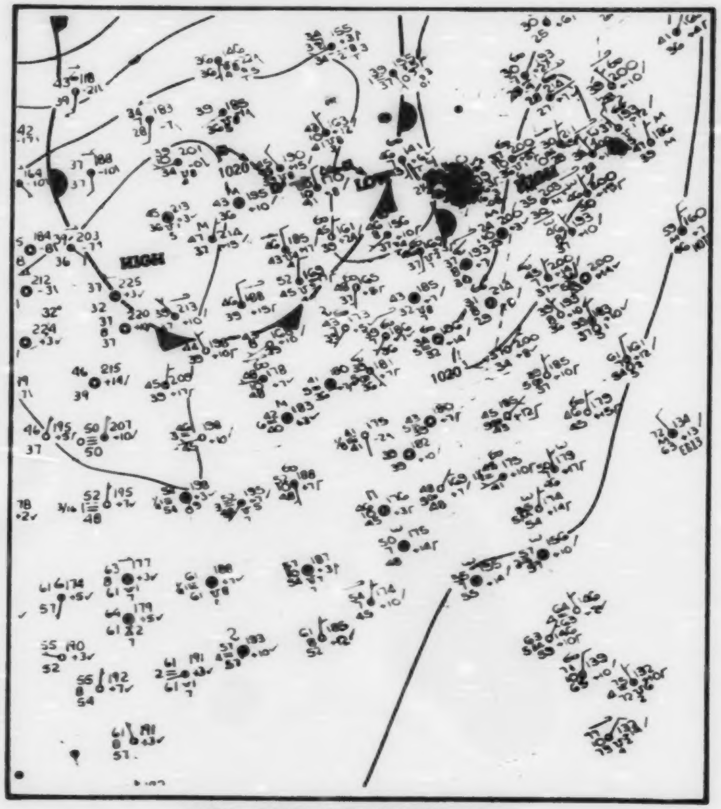
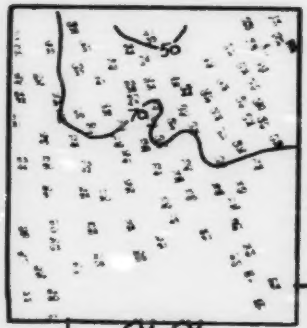
10
30
30
32
27
37
45
0
18
68
60
31
42
45
44
49
50
56
32
72
34
65
H

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

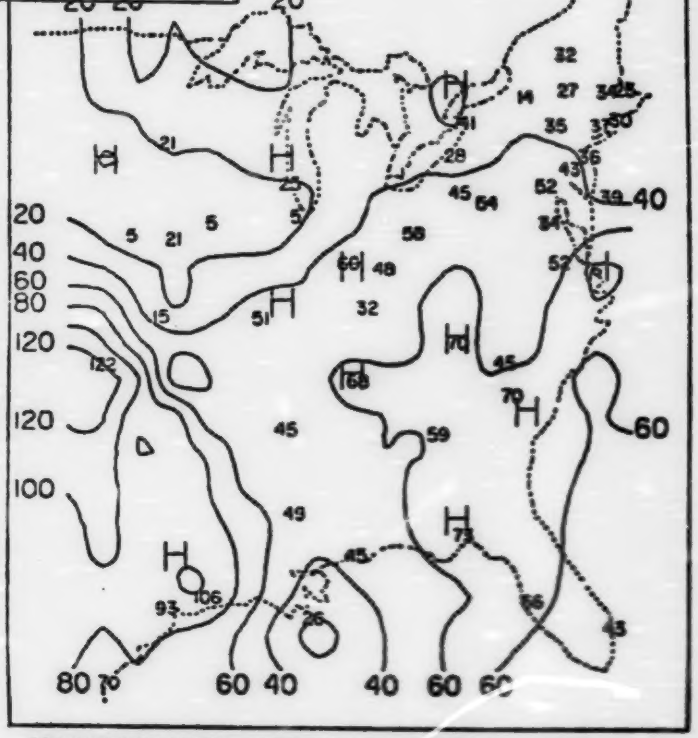
TUESDAY, OCTOBER 8, 1974


HIGH
LOW
HIGH
1020
1020
1020

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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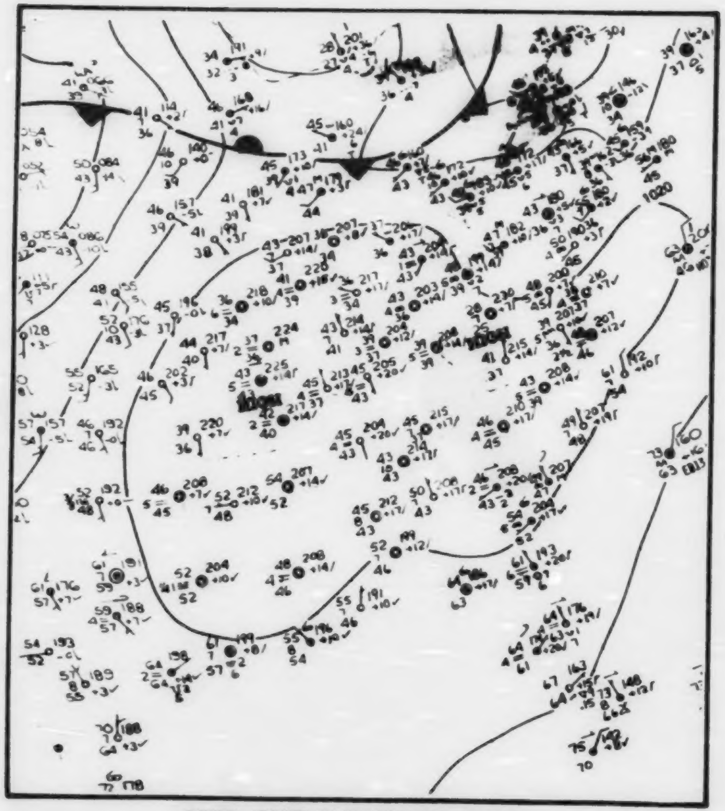
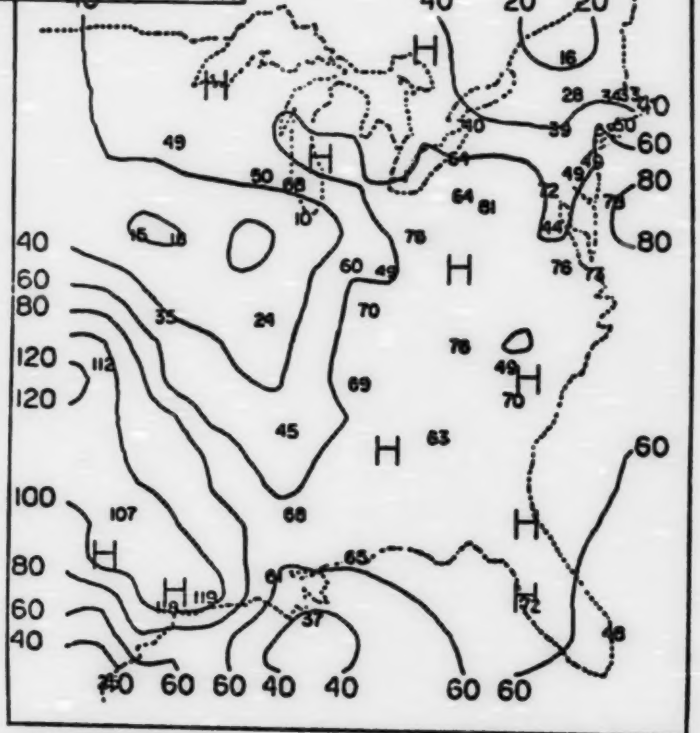
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, OCTOBER 9, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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112
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74
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107
68
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40
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119
118
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37
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72
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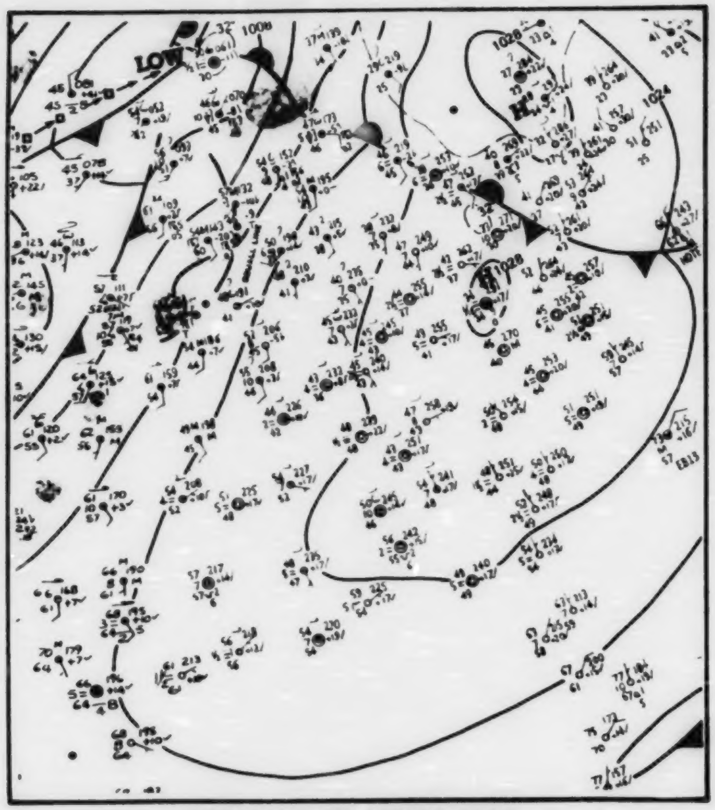
60

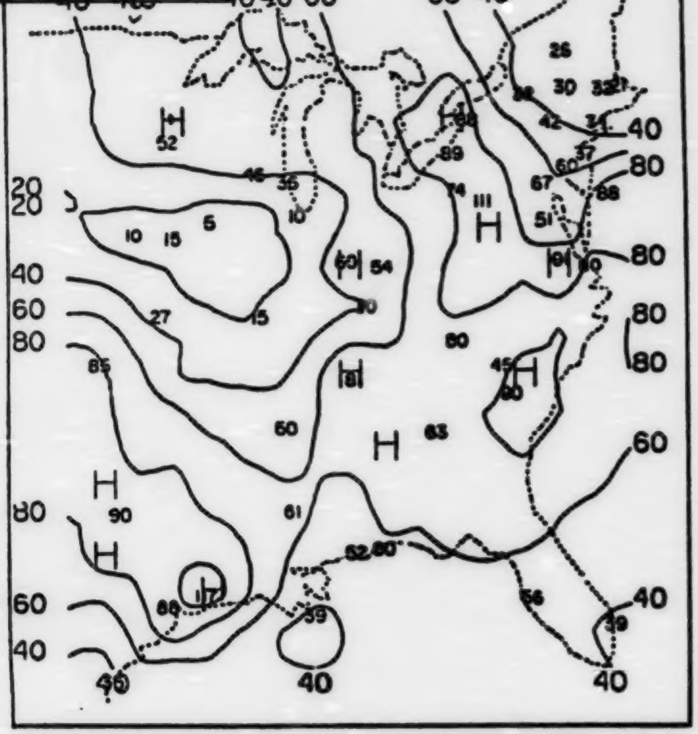
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, OCTOBER 10, 1974


LOW
1008
1028
1024

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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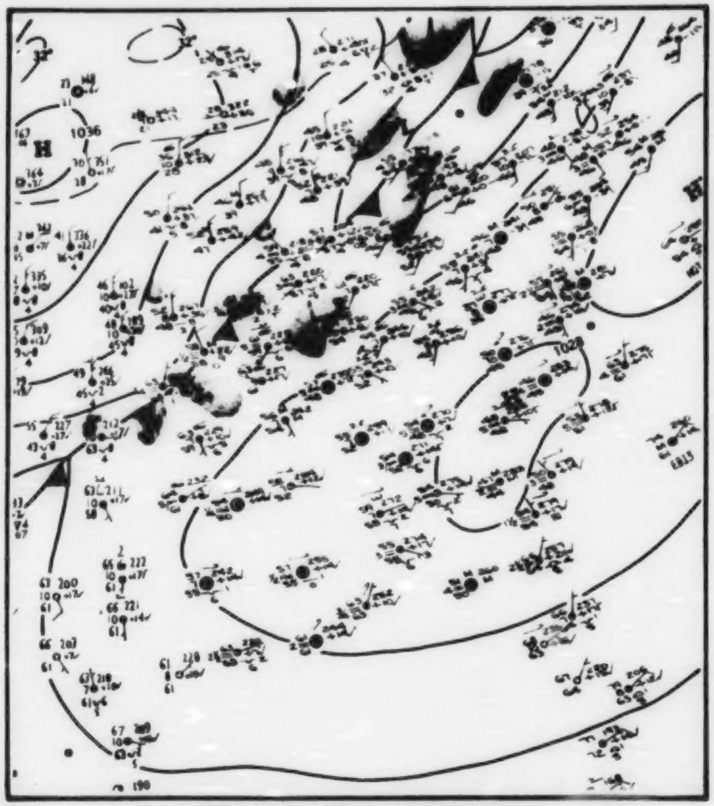
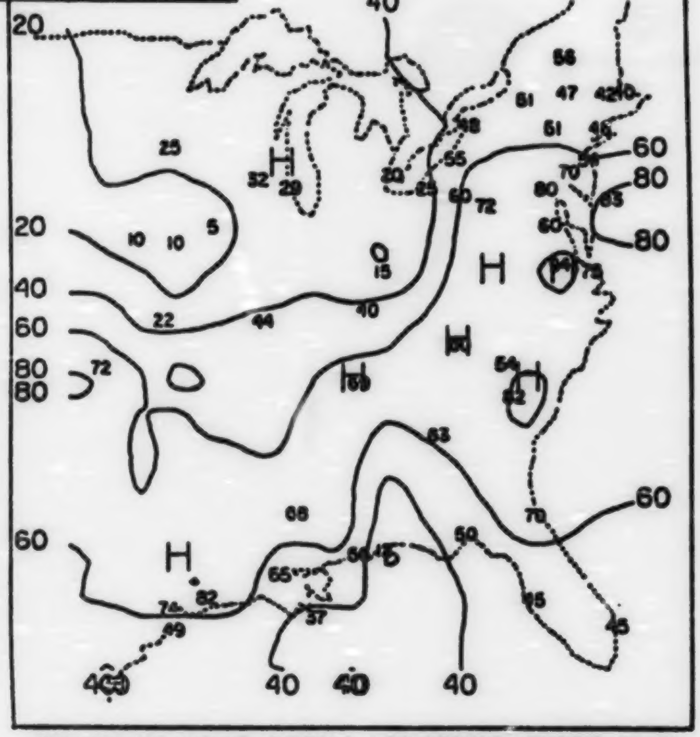
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, OCTOBER 11, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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51
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65
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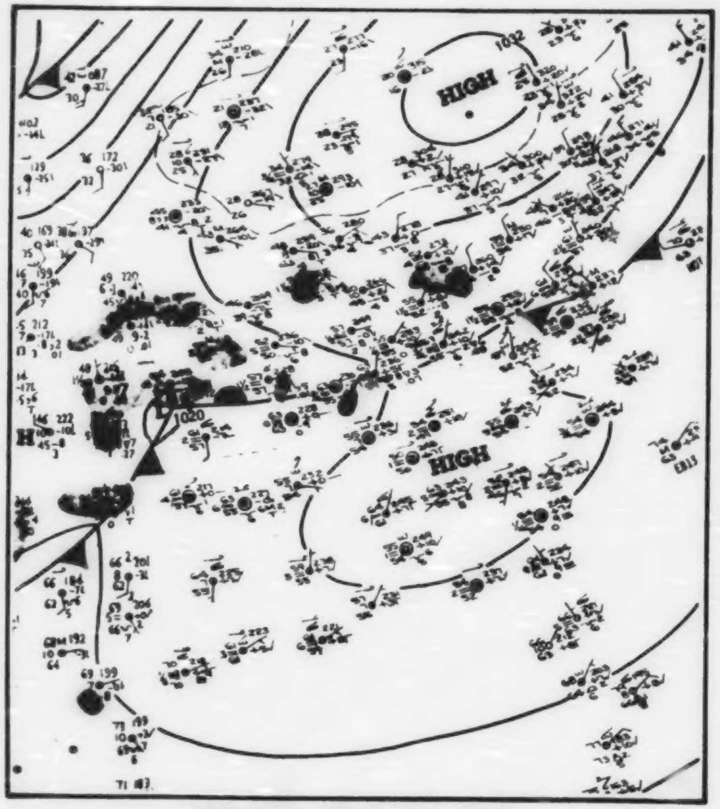
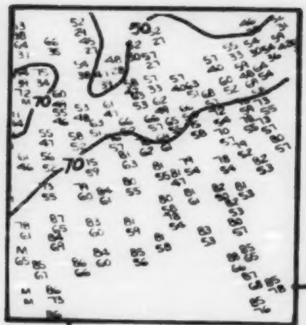
37
82
69
76

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

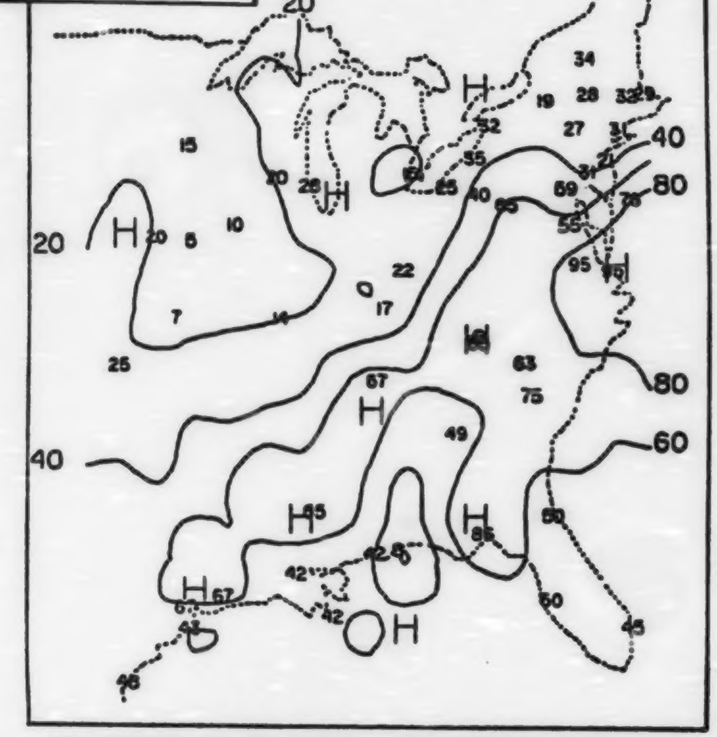
SATURDAY, OCTOBER 12, 1974


HIGH
1032
HIGH
1020

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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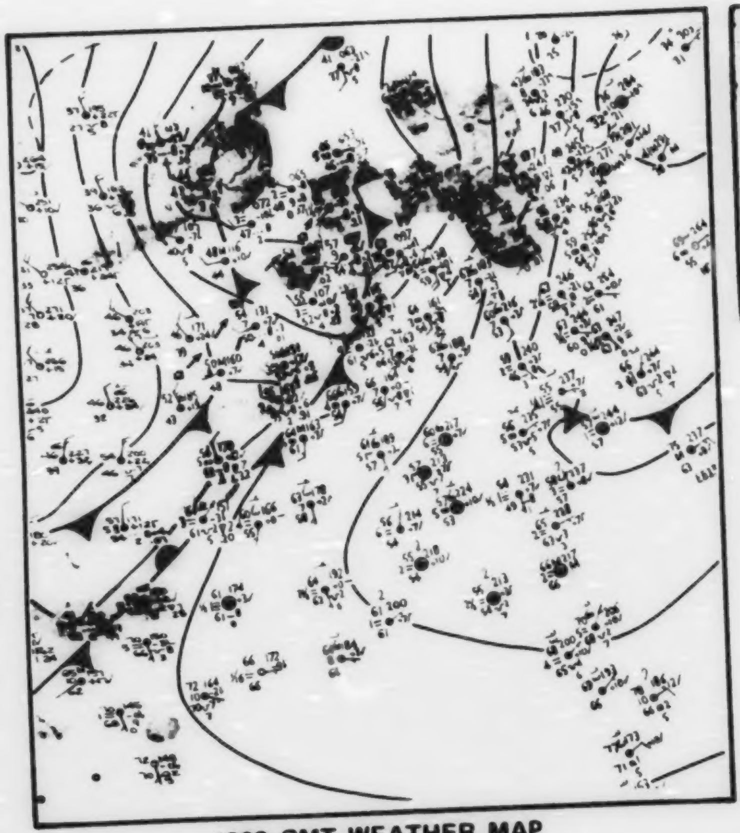
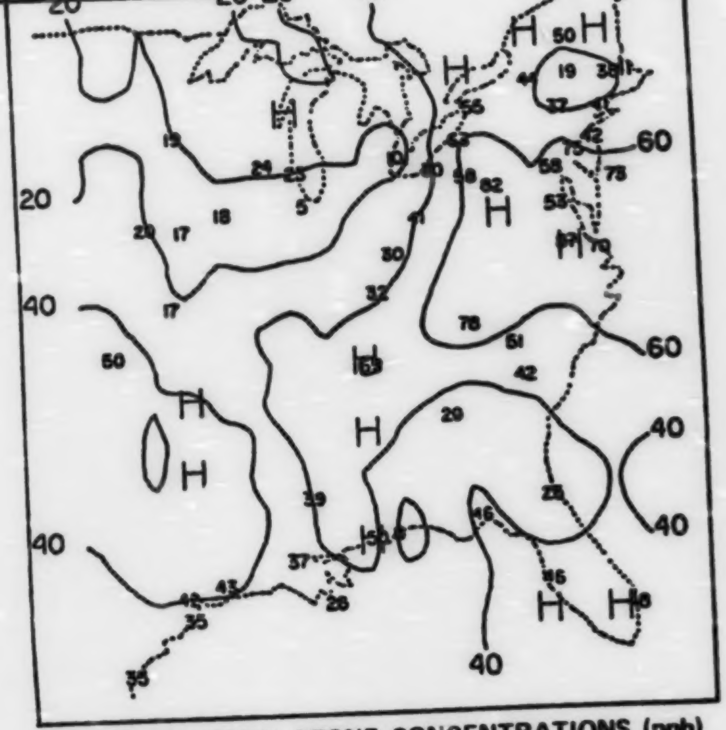
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, OCTOBER 13, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE


20
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19
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62
75
78
53
70
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32
76
51
42
60
53
20
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40
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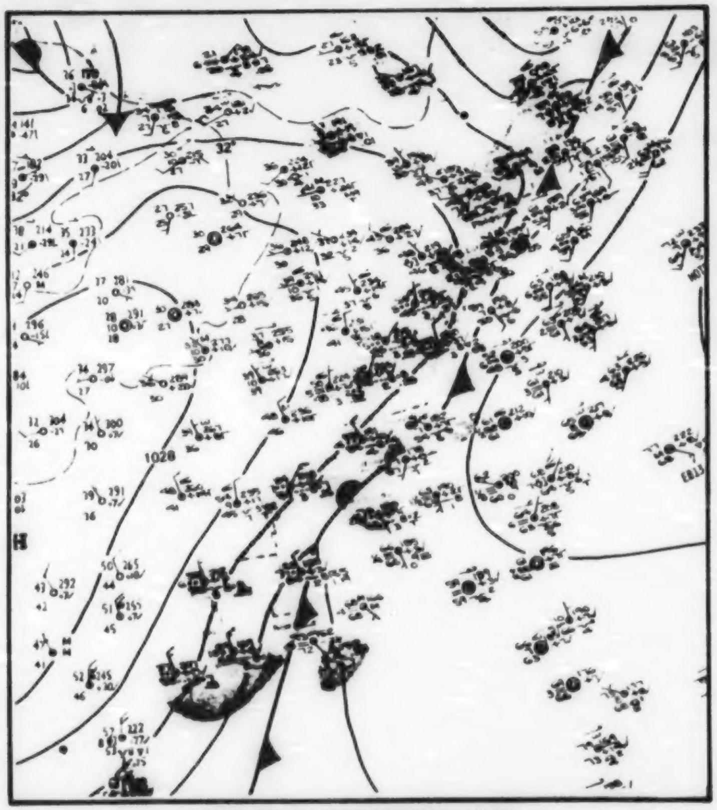
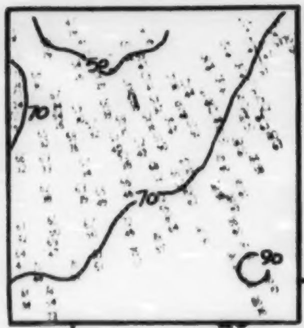
39
37
150
46
28
45
43
42
35
35
H
40

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

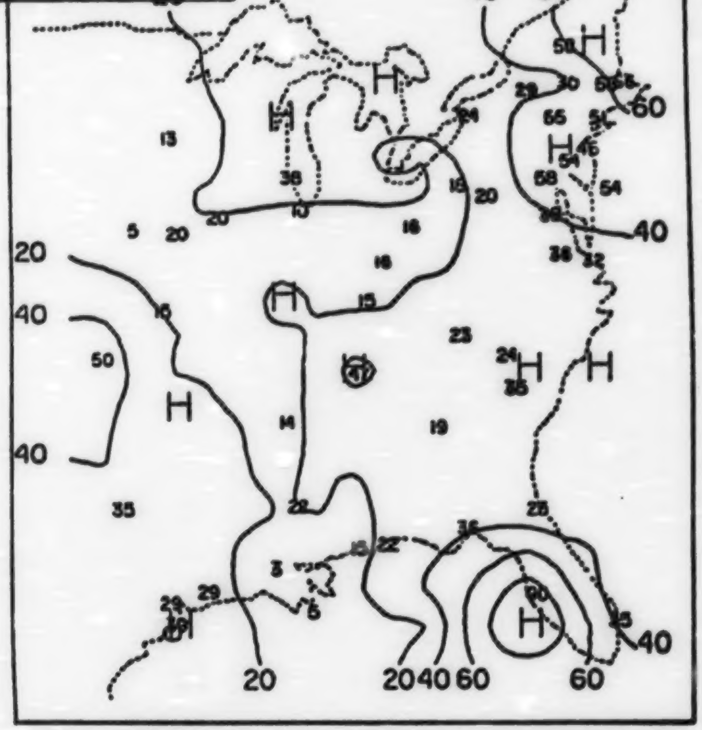
MONDAY, OCTOBER 14, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE


40
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36
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58
54
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46
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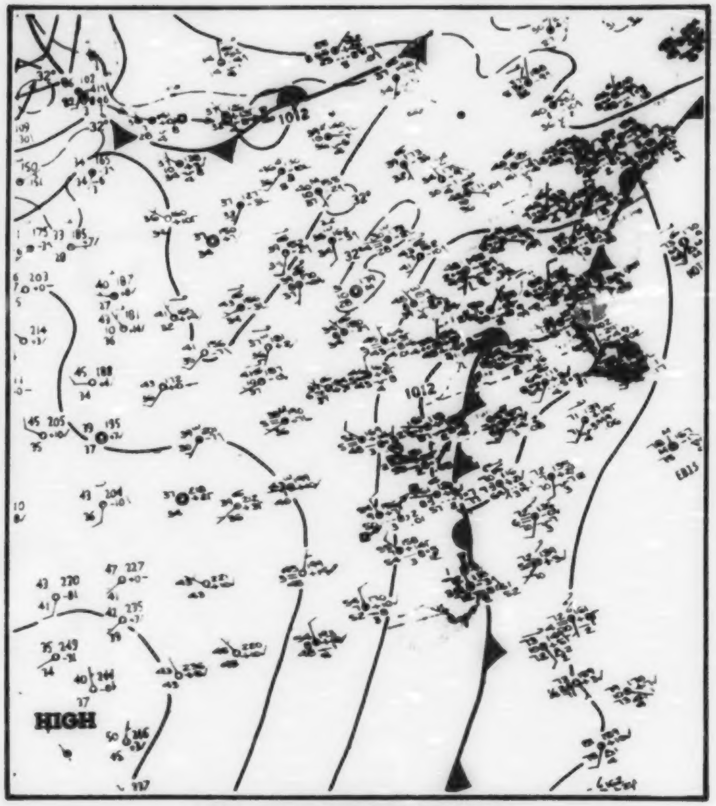
29
38
32
20
18
16

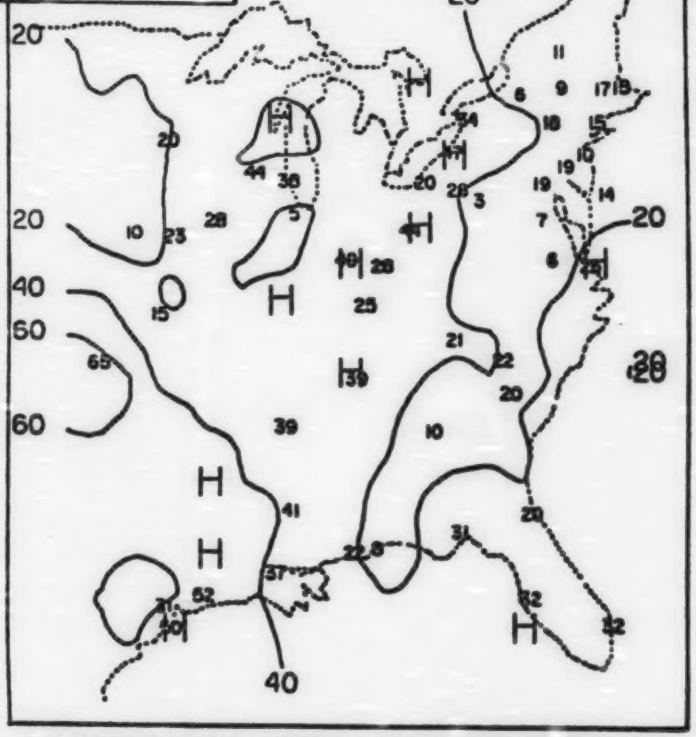
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, OCTOBER 15, 1974


1012
1012
HIGH

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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44
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52
31
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28
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34
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22
8
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20
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32
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6
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11
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19
14
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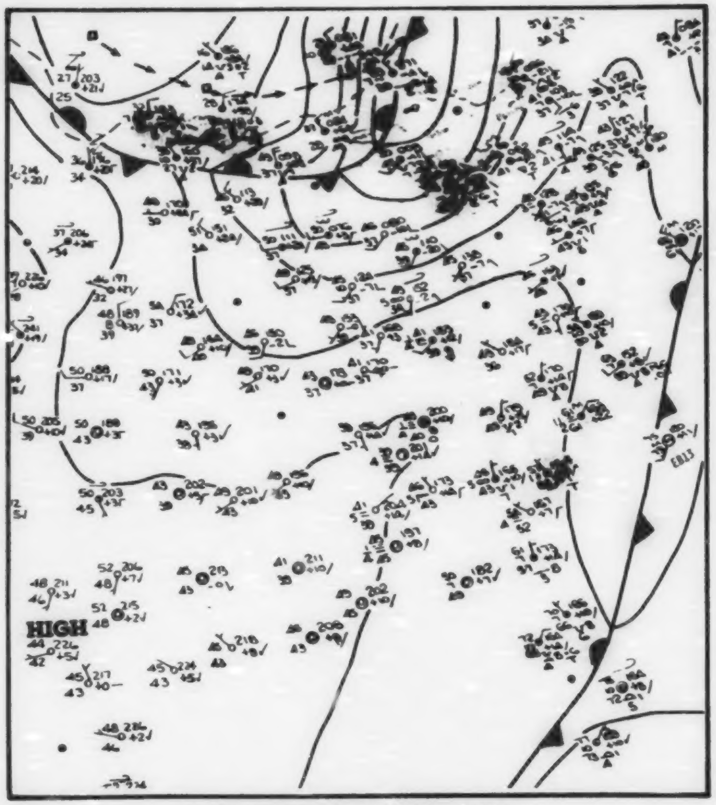
20
28

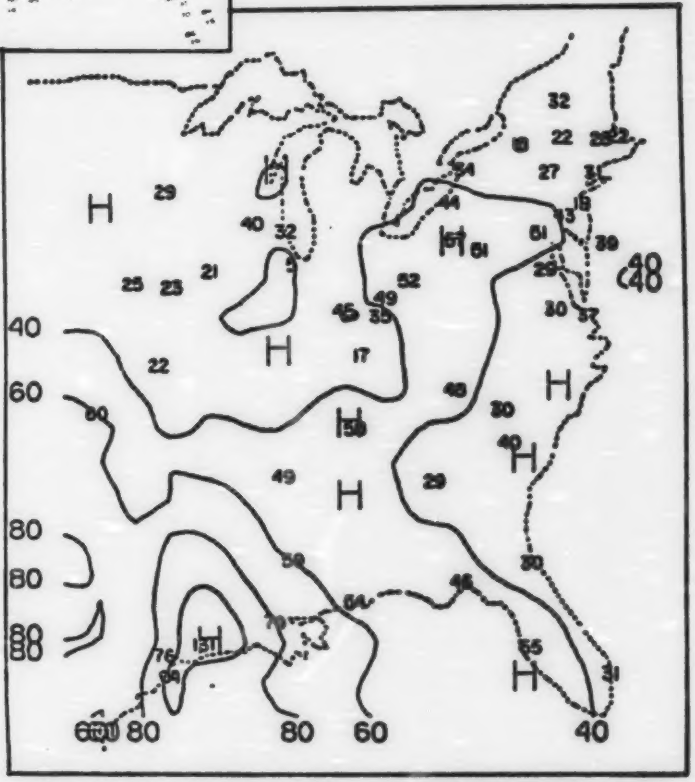
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, OCTOBER 16, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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61
51
22
17
48
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40
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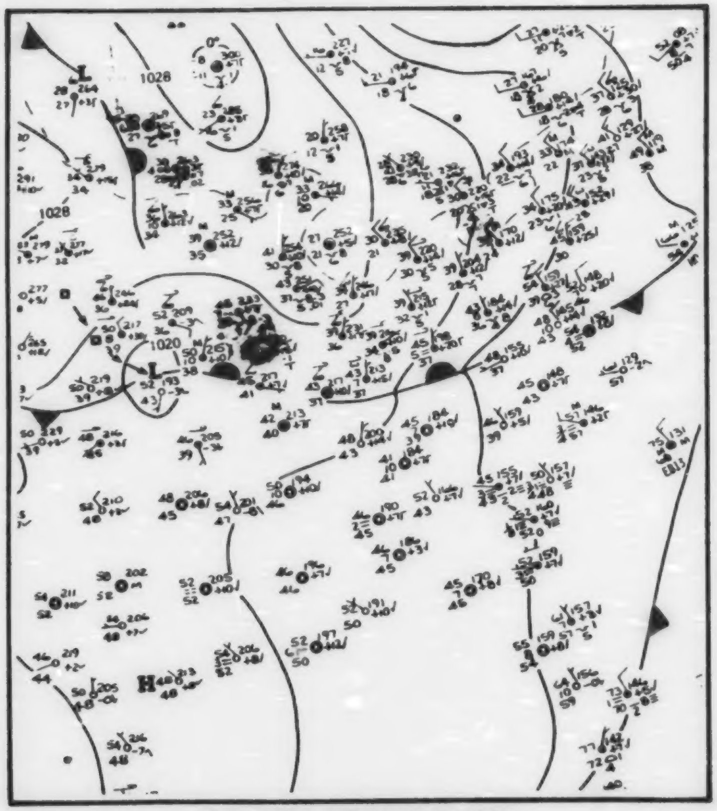
49
58
64
46
30
55
31
131
76
40
60
80
80
80
80
80
80
60
40

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, OCTOBER 17, 1974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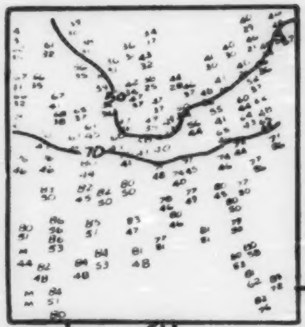
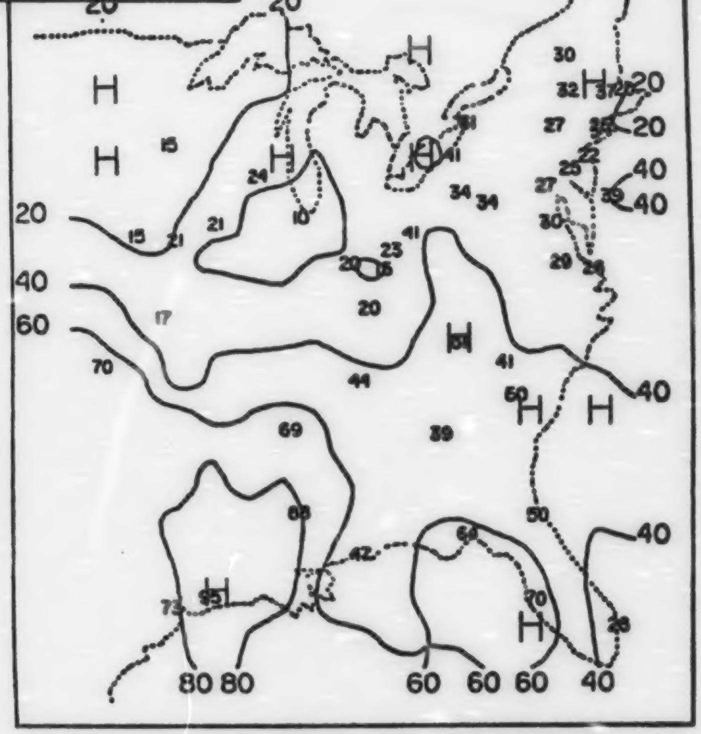
1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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60 60
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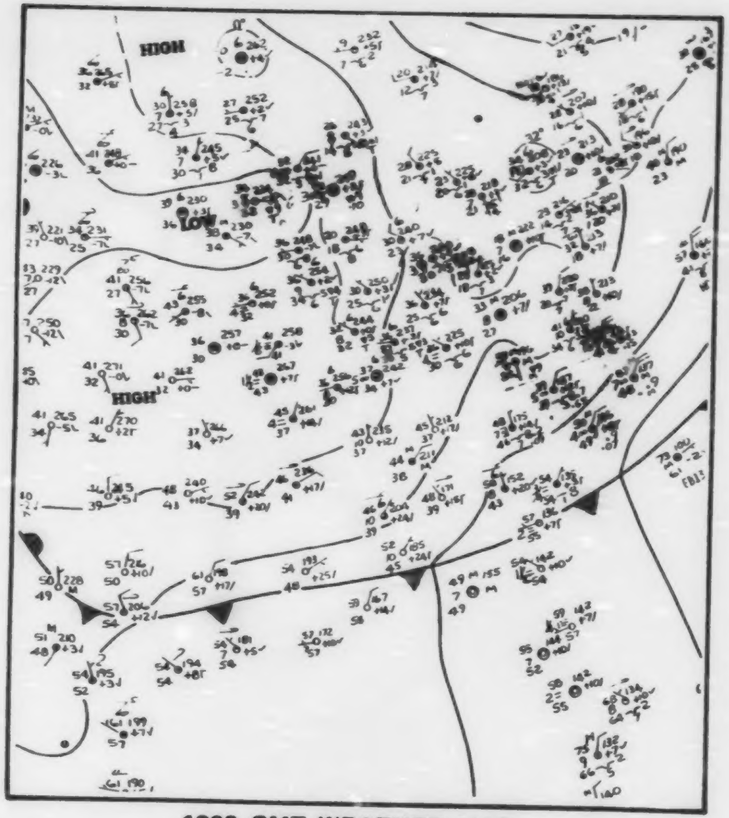
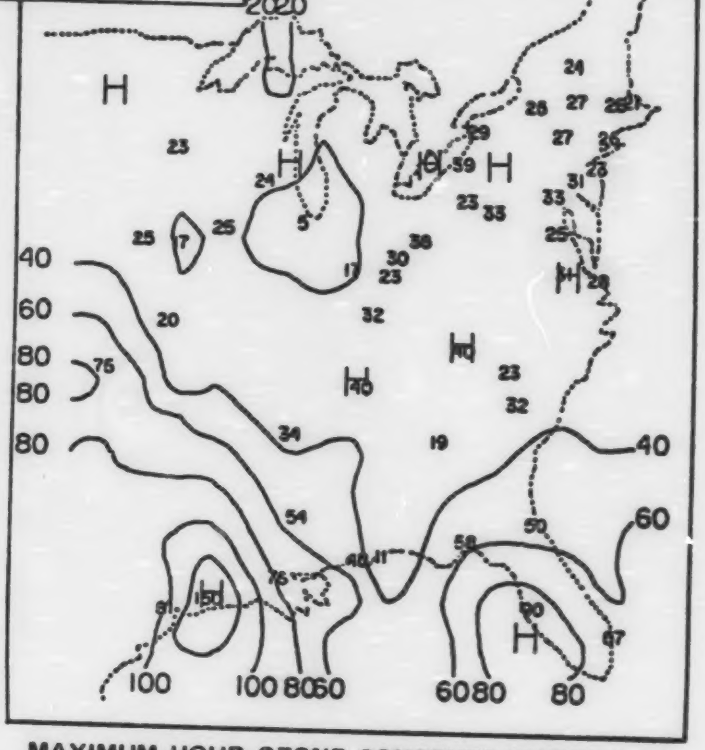
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, OCTOBER 18, 1974


HIGH
LOW
HIGH

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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100 8060
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48 41
30
36
23
32
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19
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39
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33
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31
25
33
25
28
23
32
58
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90
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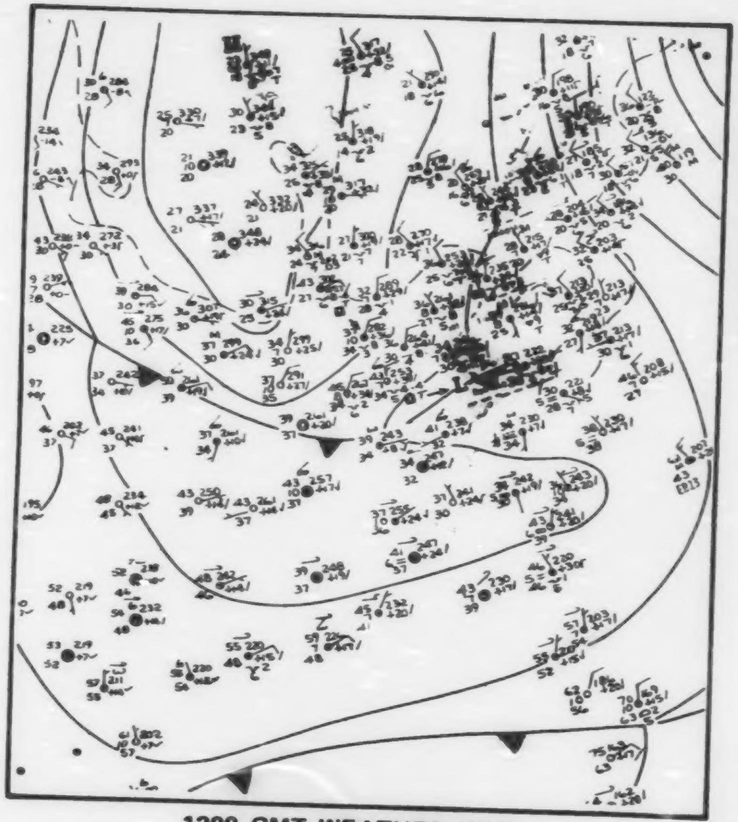
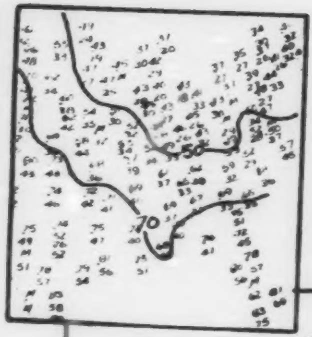
67
40
60
6080
80

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

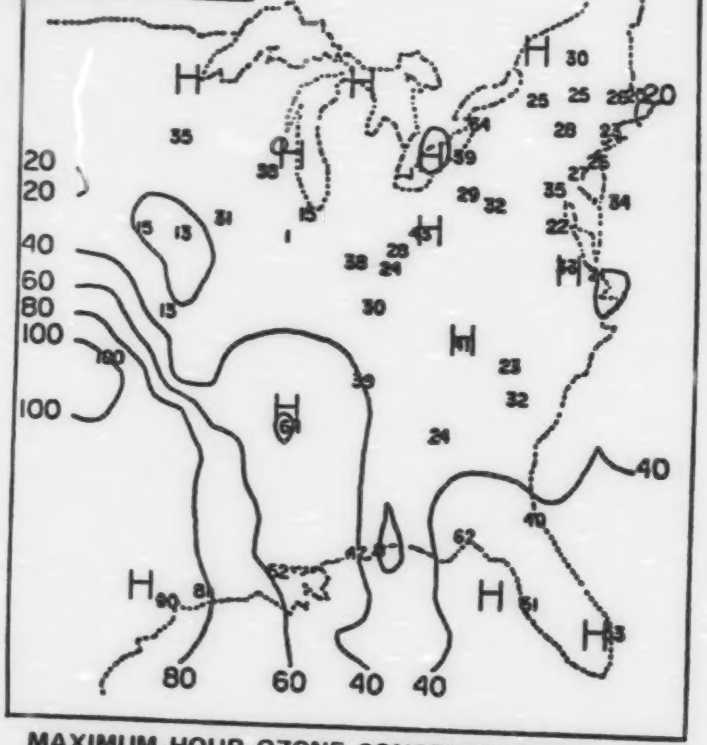
SATURDAY, OCTOBER 19, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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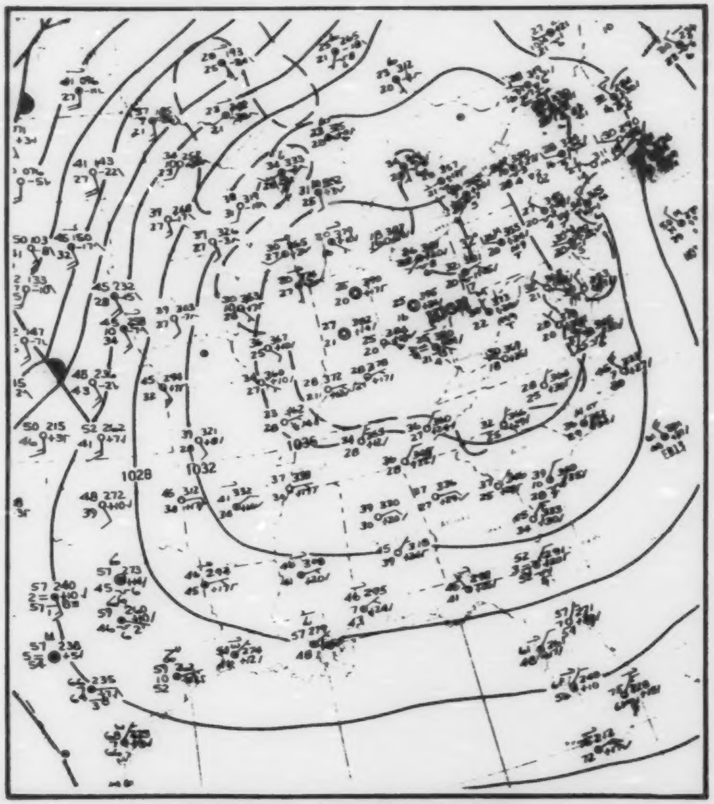
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

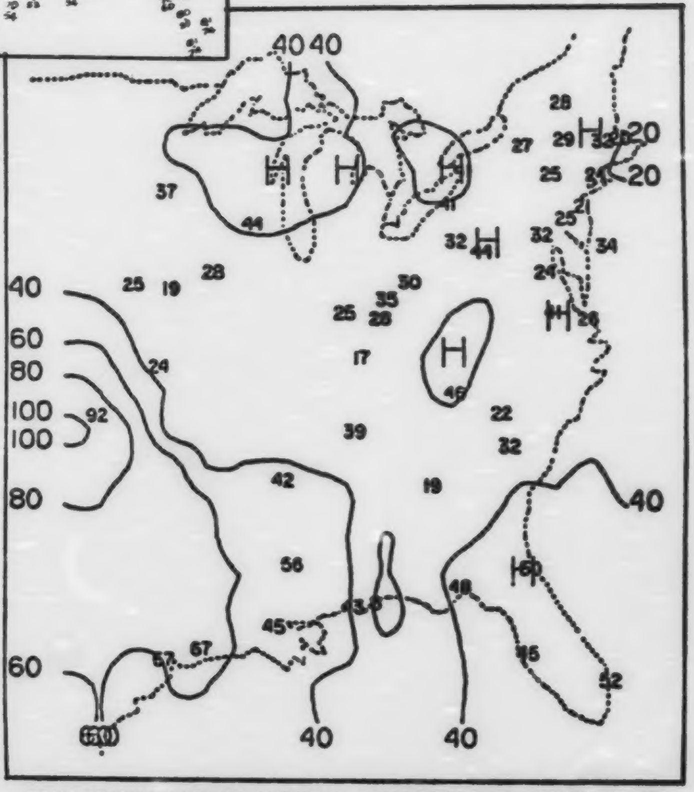
SUNDAY, OCTOBER 20, 1974



1028
1032
1036

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE



4040
40
60
80
100
100
80
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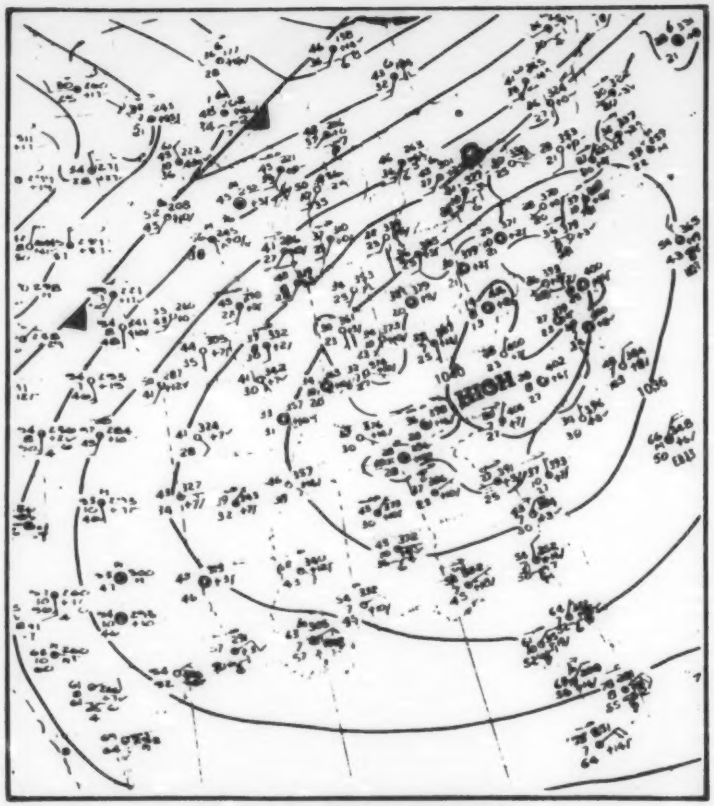
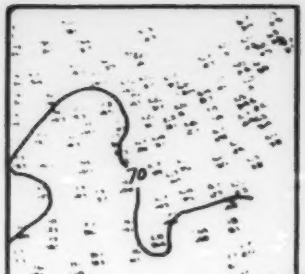
60
40
40
40
20
20
92
H

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

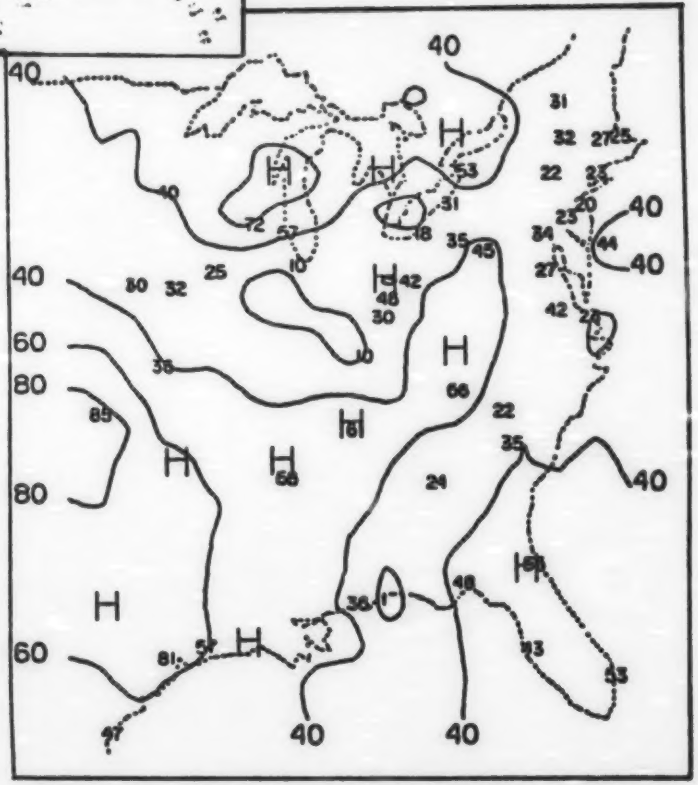
MONDAY, OCTOBER 21, 1974


HIGH
1036
1040

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE


40
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40
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31
32
27
25
22
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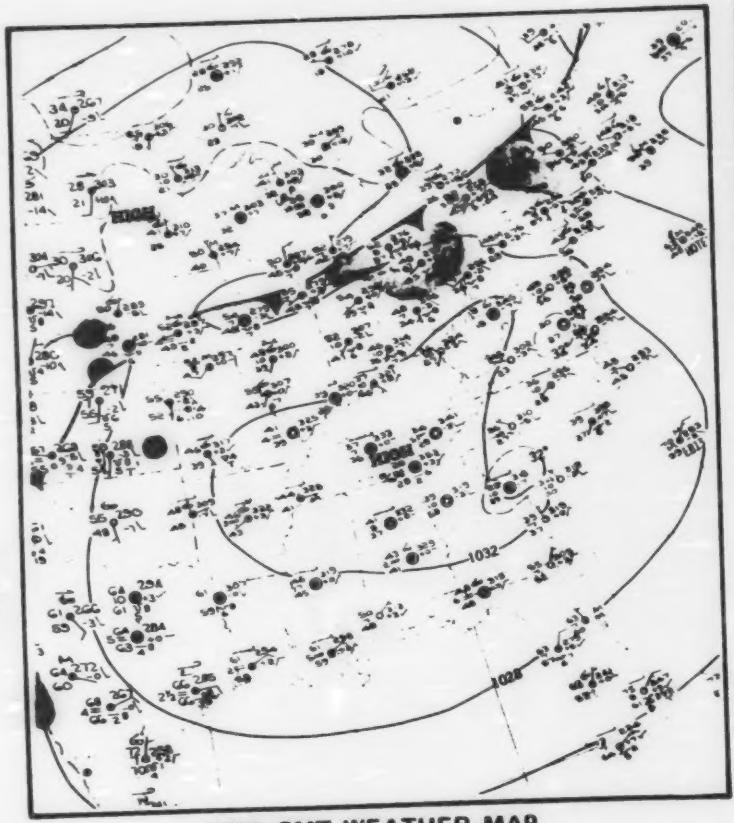
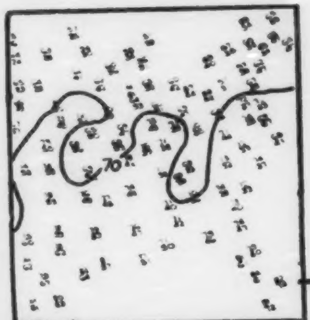
72
57
31
18
35
45
34
23
20
44
27
42
30
32
25
10
42
48
30
10
35
H
66
22
85
H
H
58
24
35
38
48
33
53
81
57
47

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

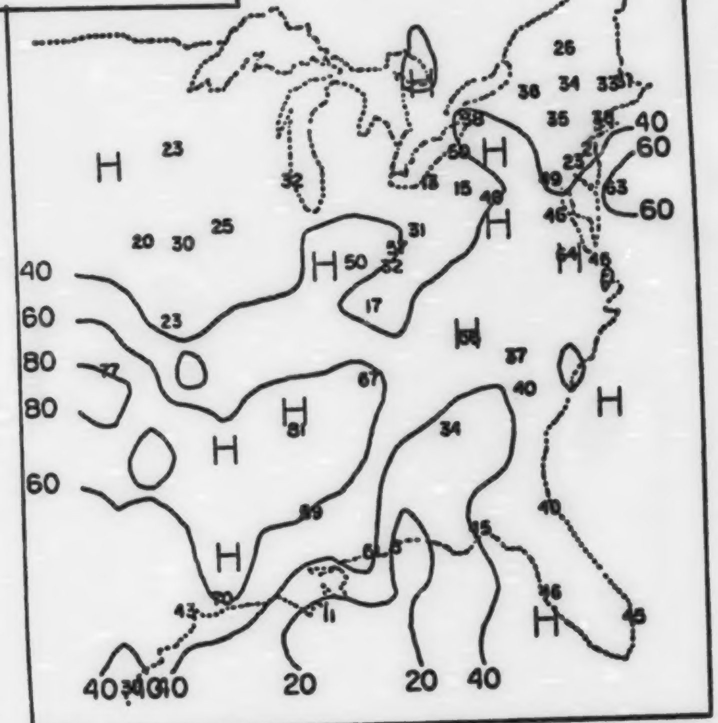
TUESDAY, OCTOBER 22, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE



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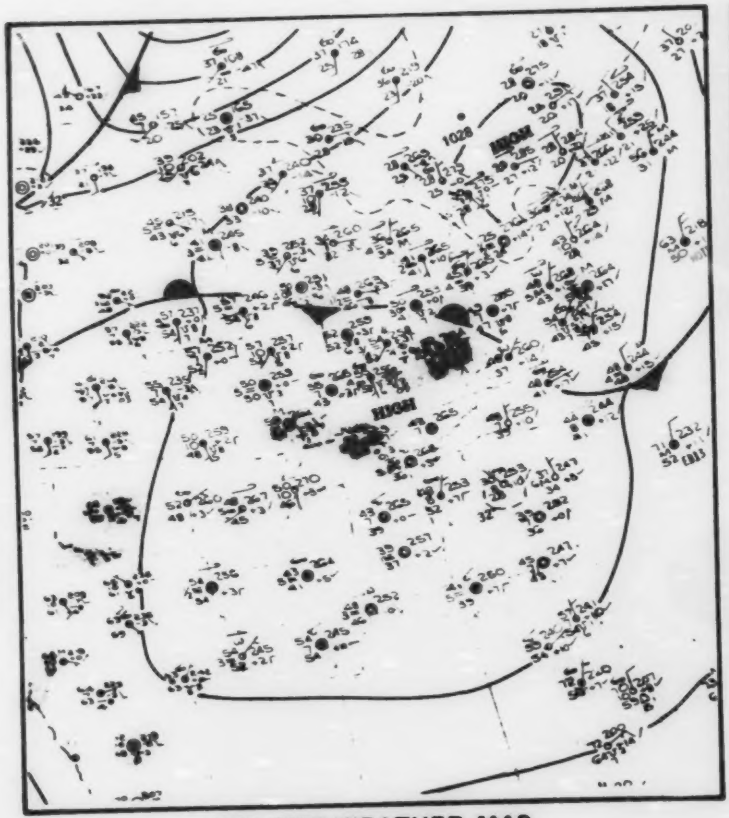
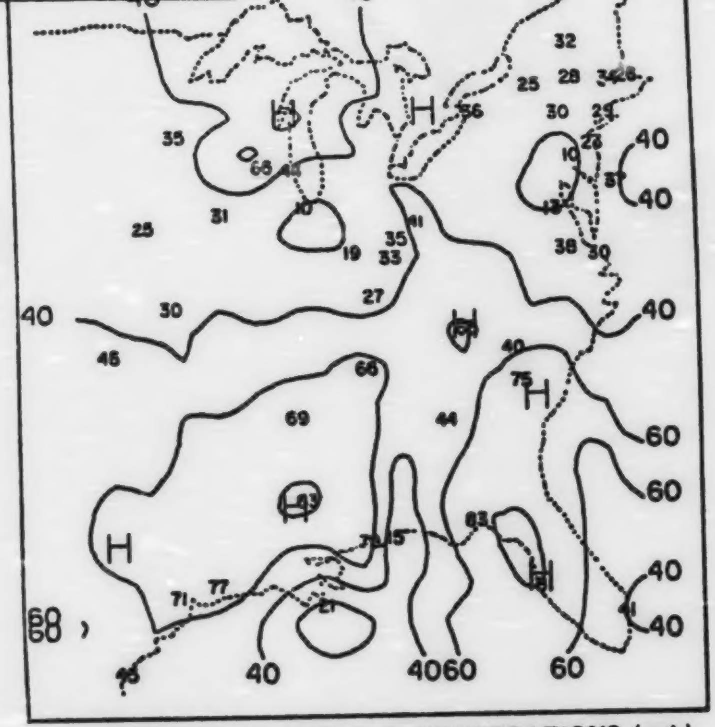
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, OCTOBER 23, 1974


HIGH
1028
HIGH

1200 GMT WEATHER MAP

MAXIMUM-MINIMUM TEMPERATURE


40
40
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4060
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60
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33
41
25
31
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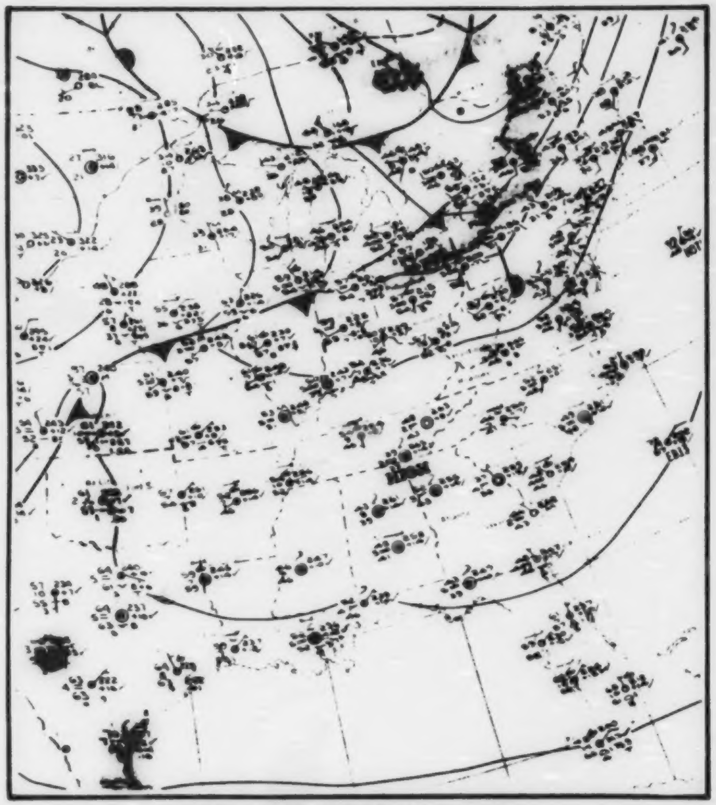
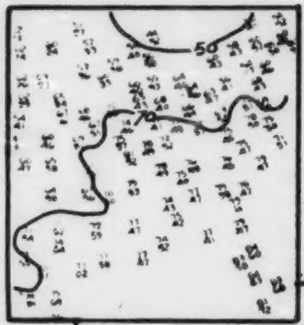
27
46
66
40
75
69
44
63
73
15
21
71
77
63
41
46

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

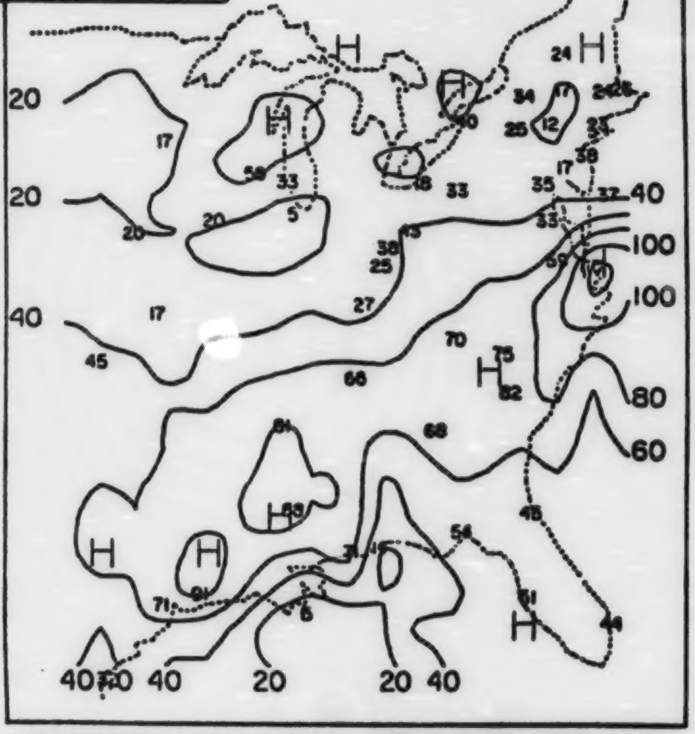
THURSDAY, OCTOBER 24, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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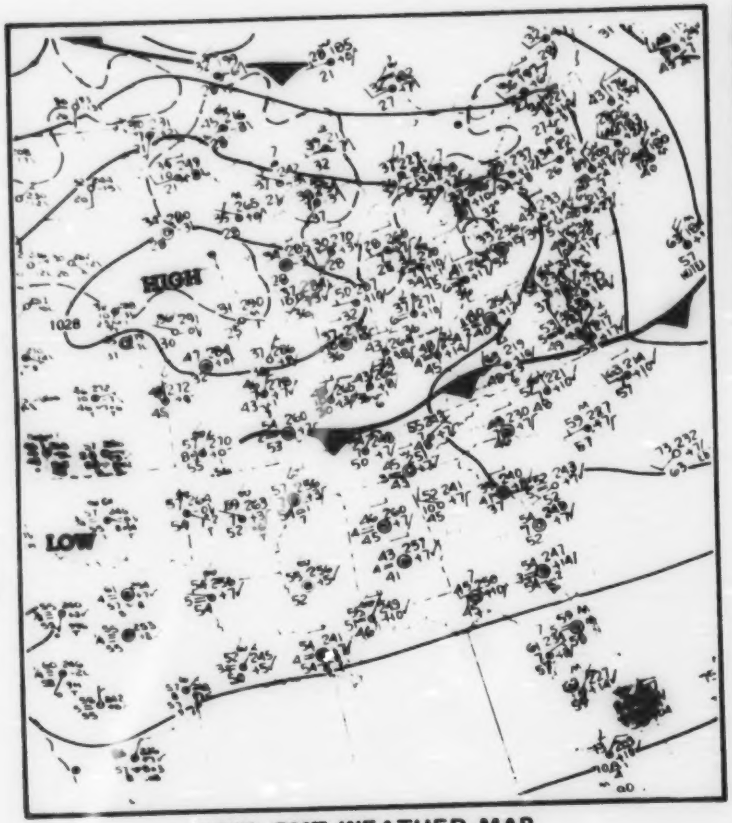
40
H

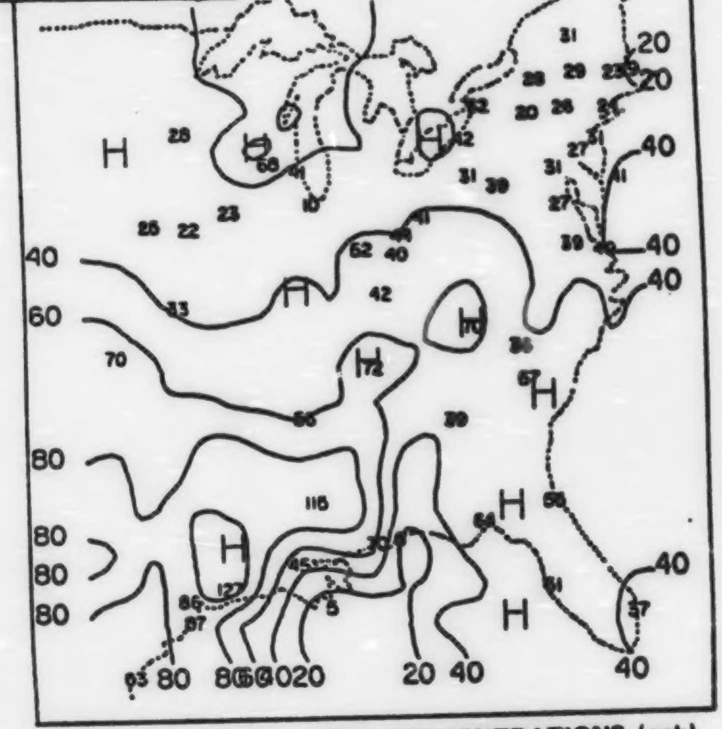
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, OCTOBER 25, 1974


HIGH
LOW
1028

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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80
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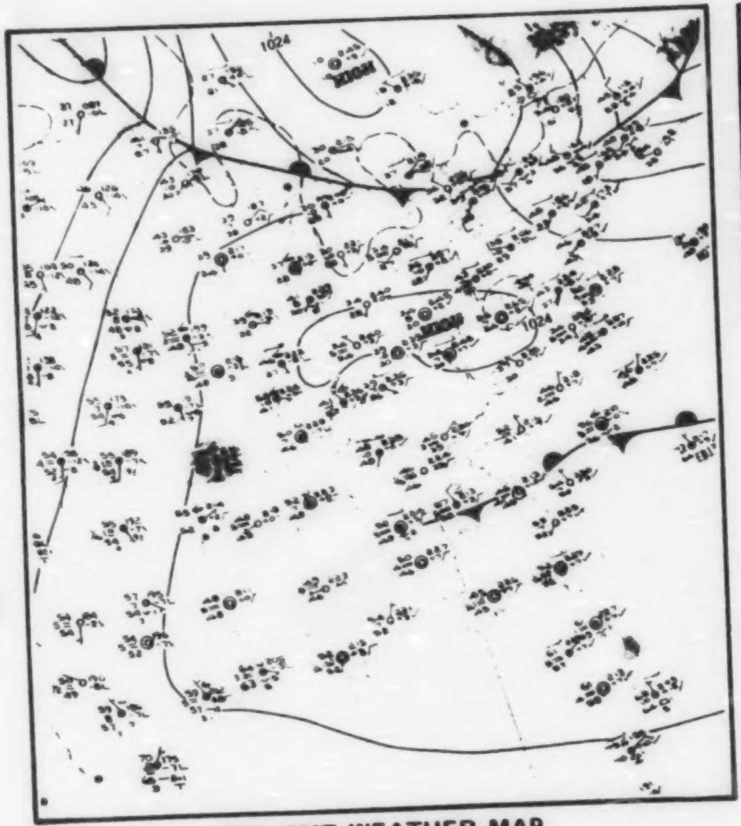
80
60
40
20
20
40
115
127
70

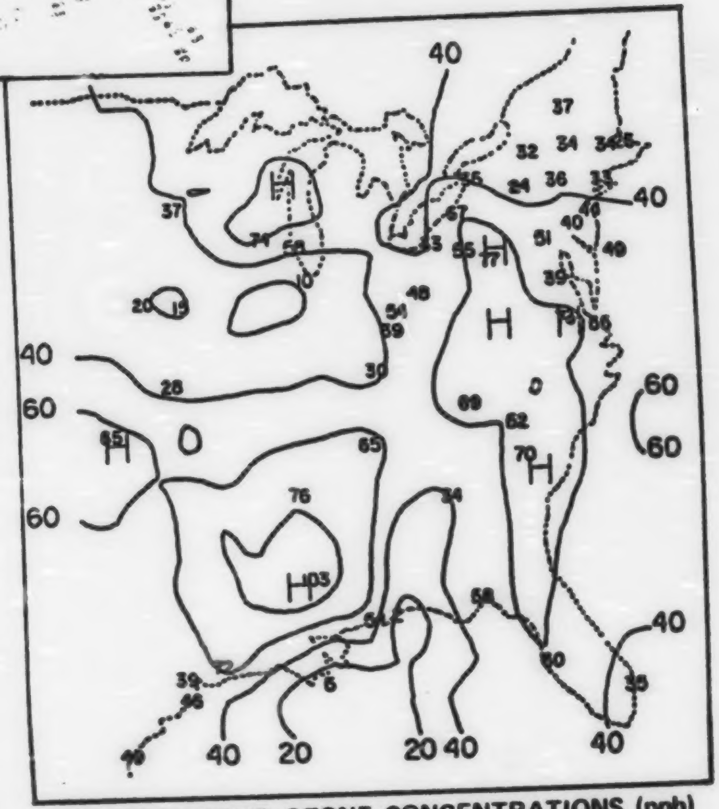
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, OCTOBER 26, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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28
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15
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58
74
65
69
62
70
76
103
34
58
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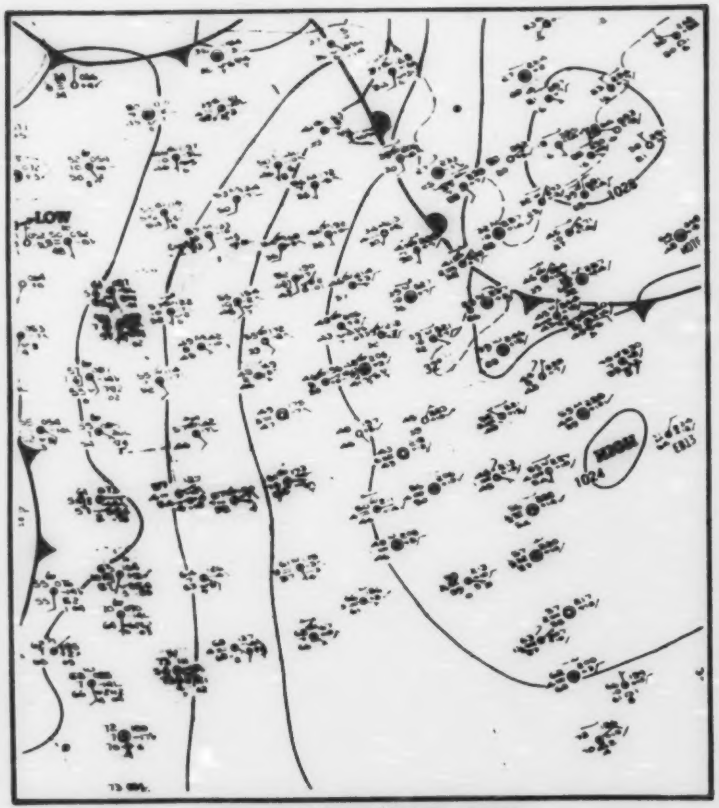
35
39
36
6
65
56

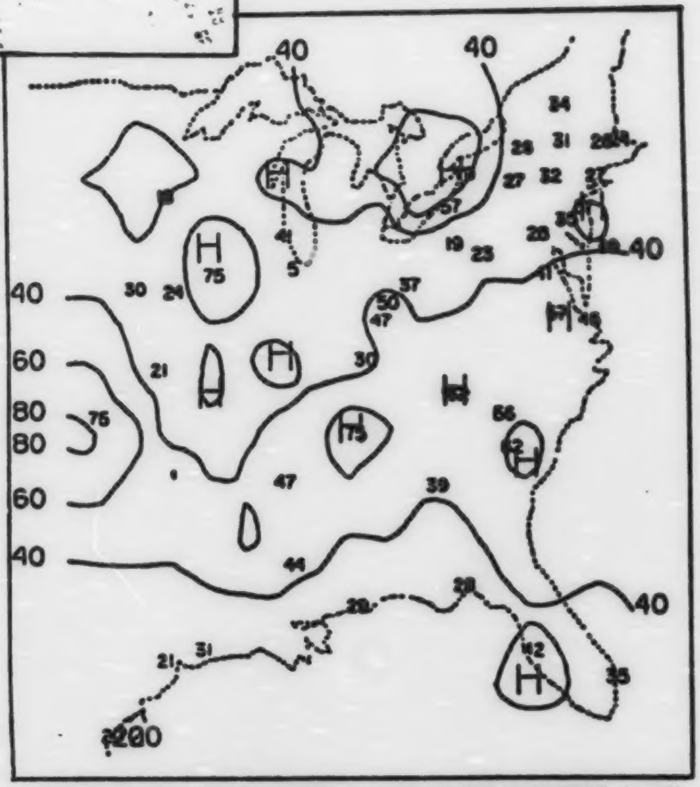
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, OCTOBER 27, 1974


LOW
HIGH
1024
1028

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE


40
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40
40
H
75
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75
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62
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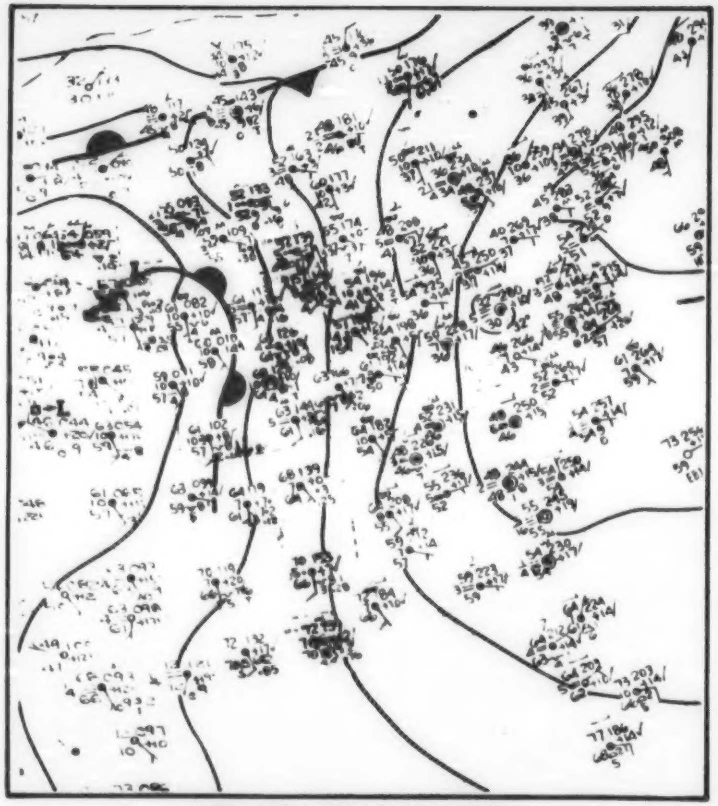
42
200

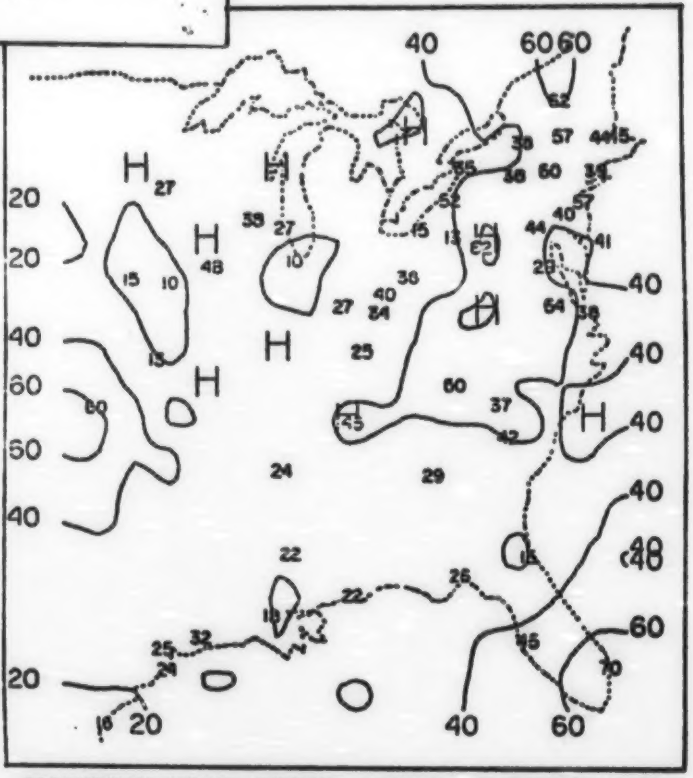
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, OCTOBER 28, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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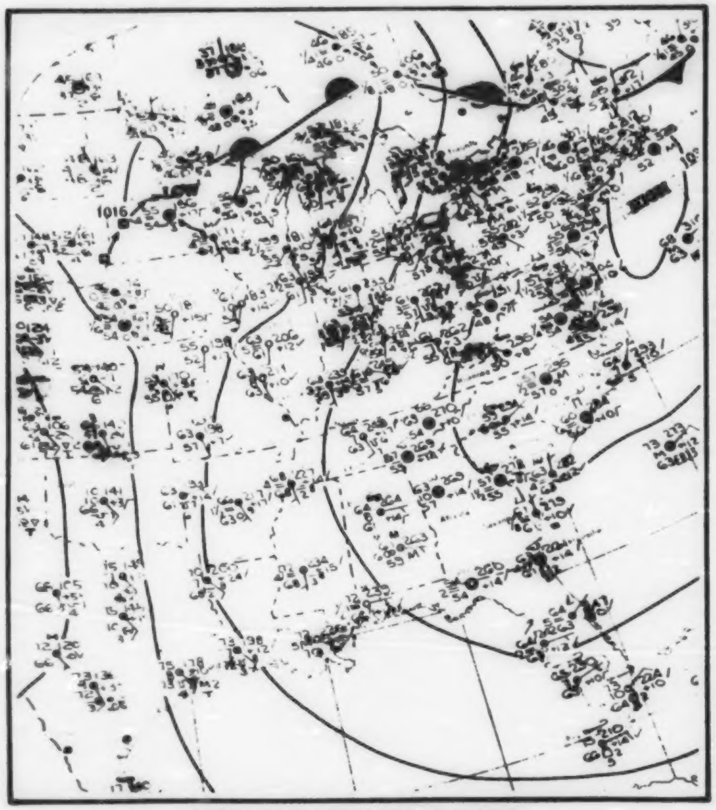
57
23
64
38

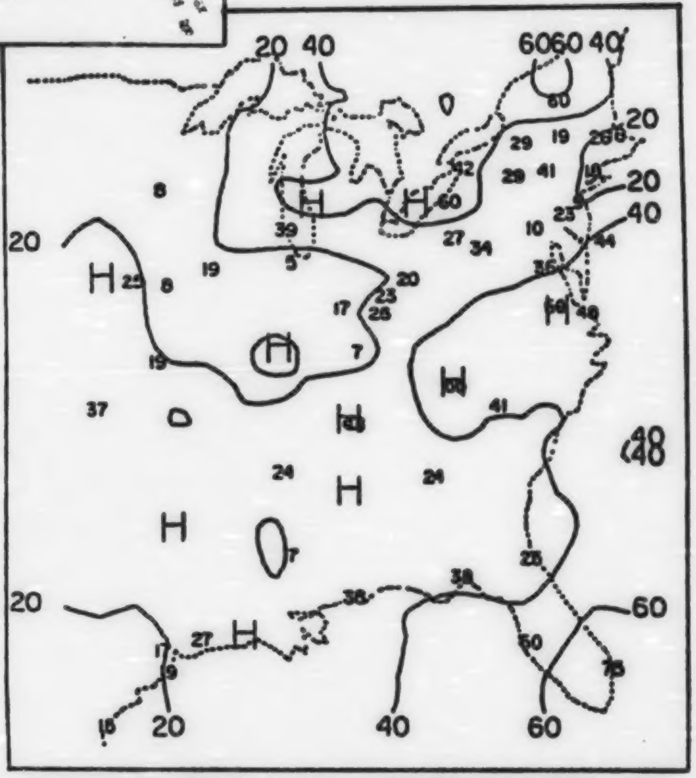
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, OCTOBER 29, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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37
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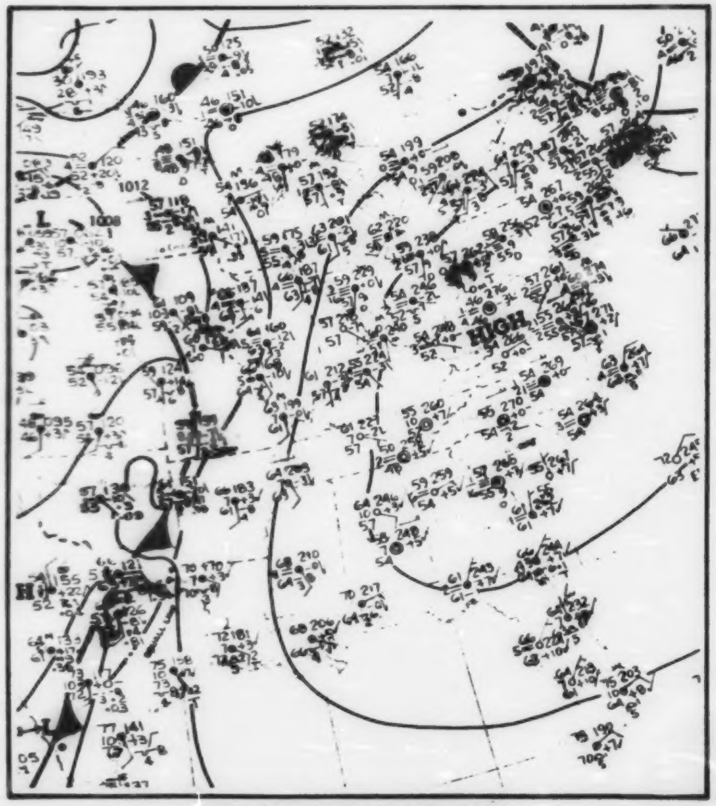
38
25
27
17
9
15
50
75
48

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, OCTOBER 30, 1974


HIGH
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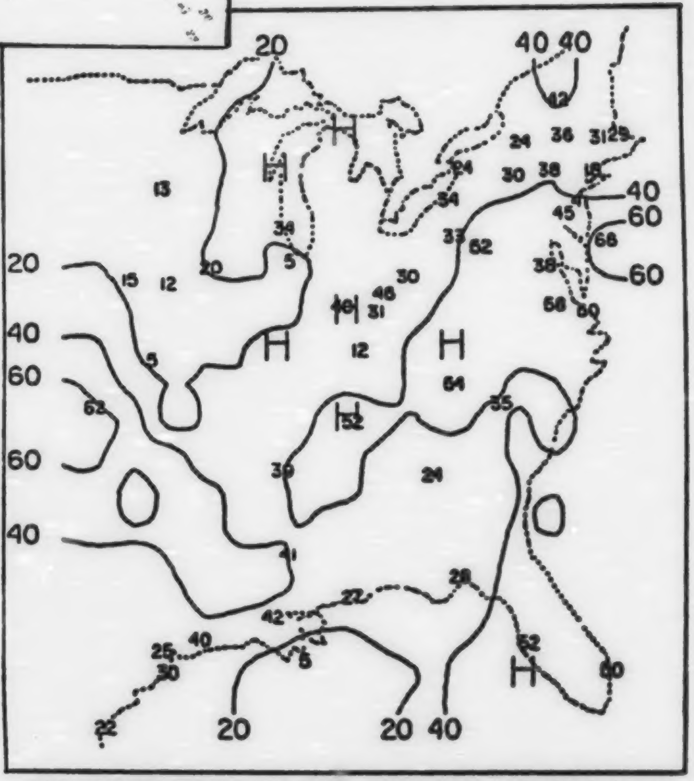
1012
1008

1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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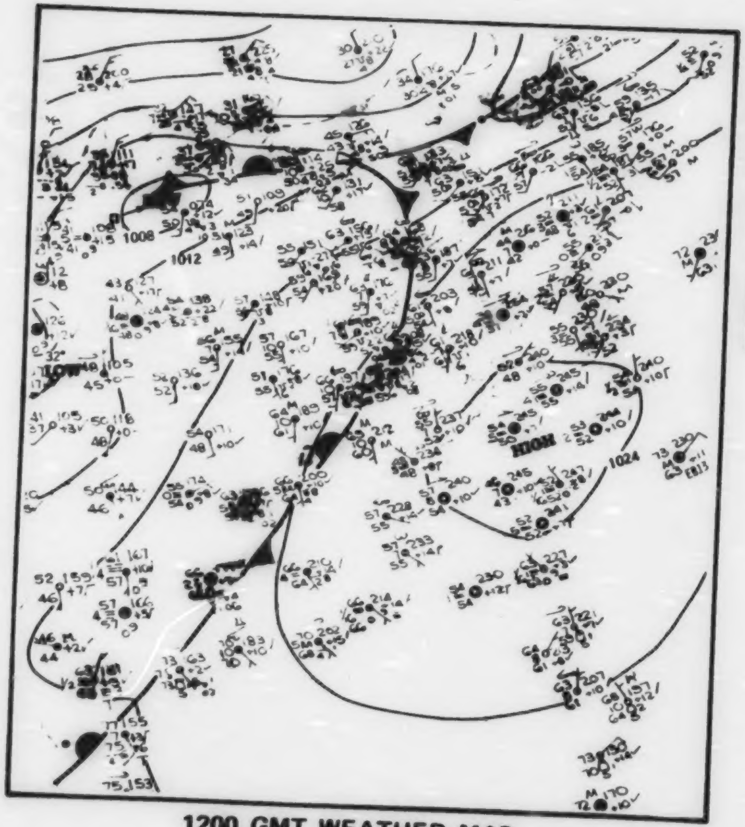
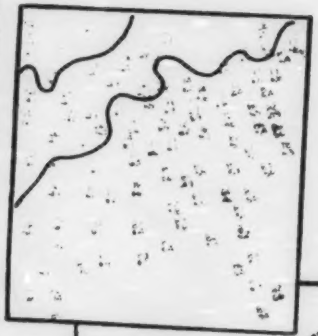
28
52
60
25
40
30
22
5
62

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

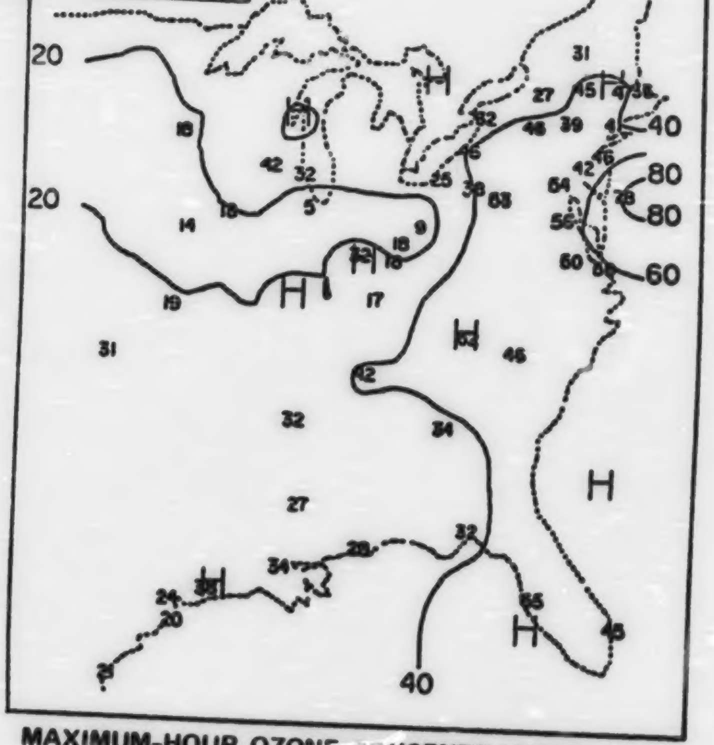
THURSDAY, OCTOBER 31, 1974


HIGH
LOW
1008
1012
1024

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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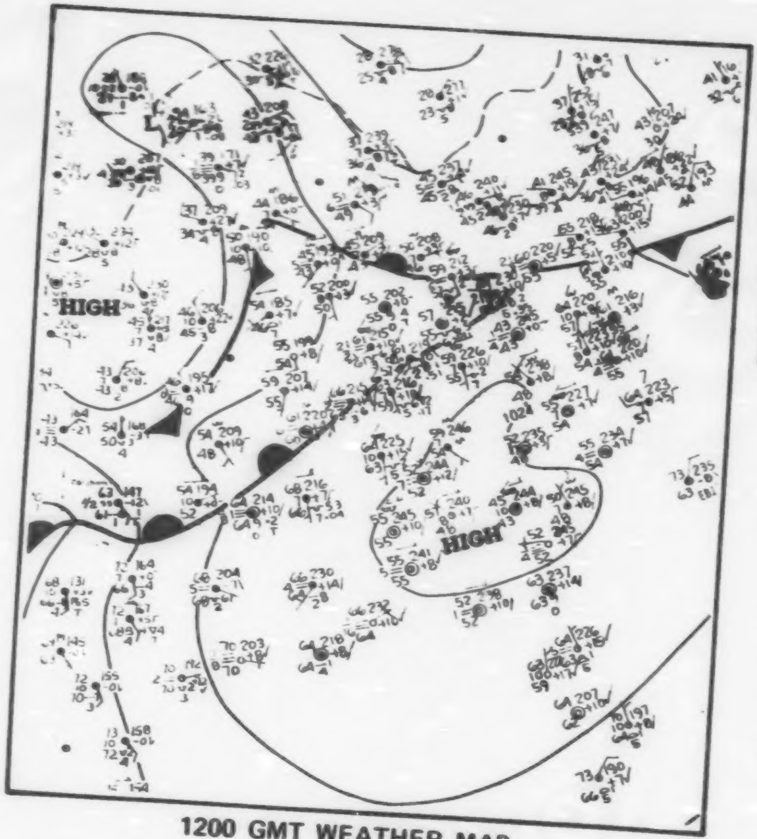
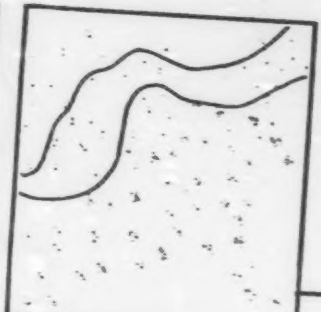
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

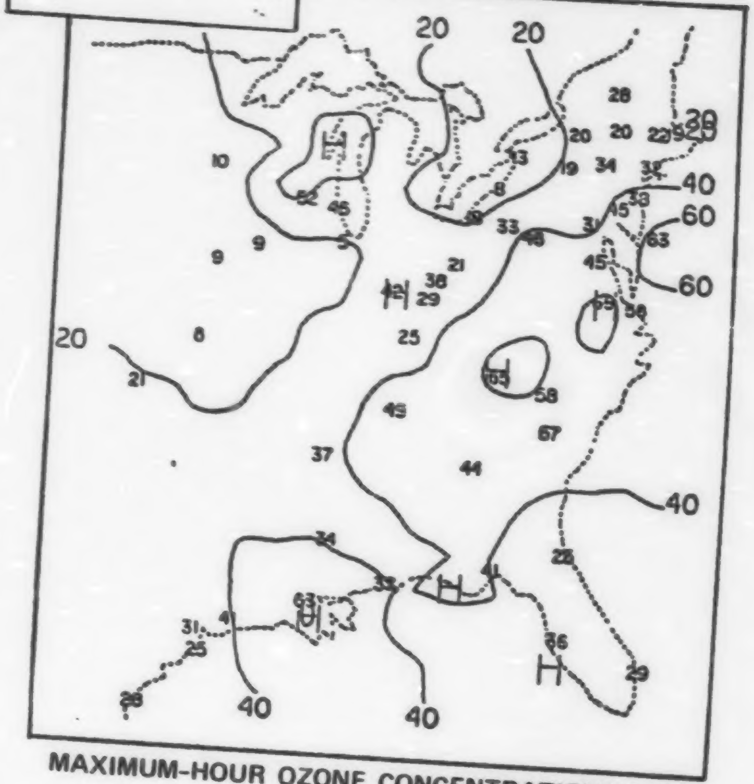
FRIDAY, NOVEMBER 1, 1974



1200 GMT WEATHER MAP



MAXIMUM-MINIMUM TEMPERATURE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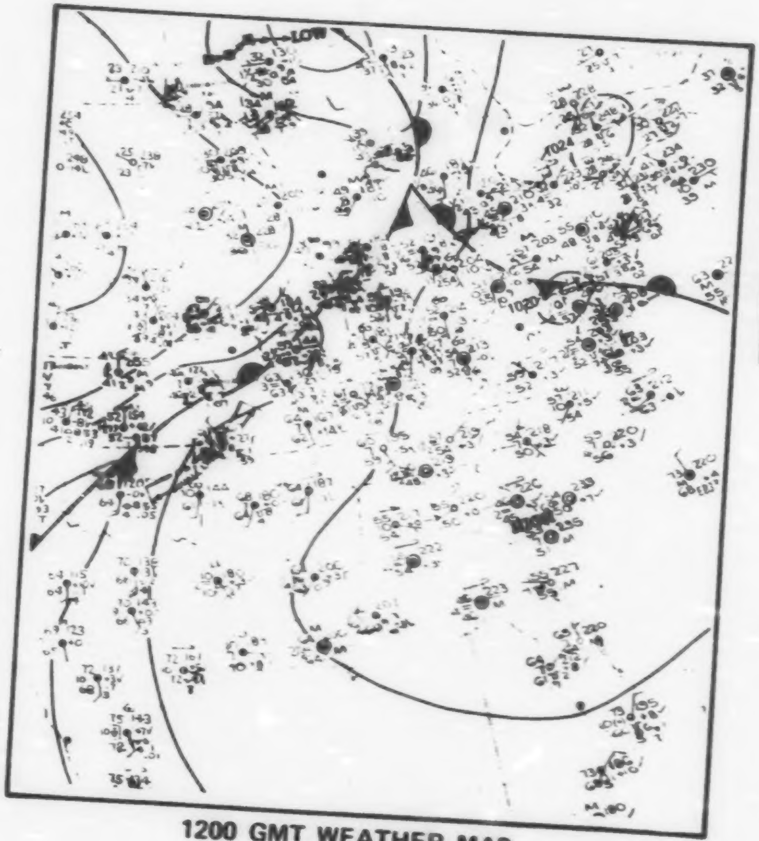
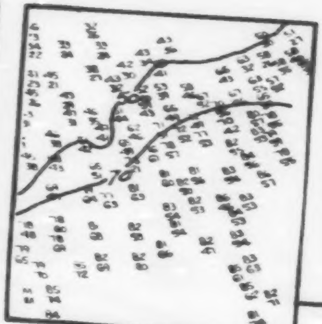
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

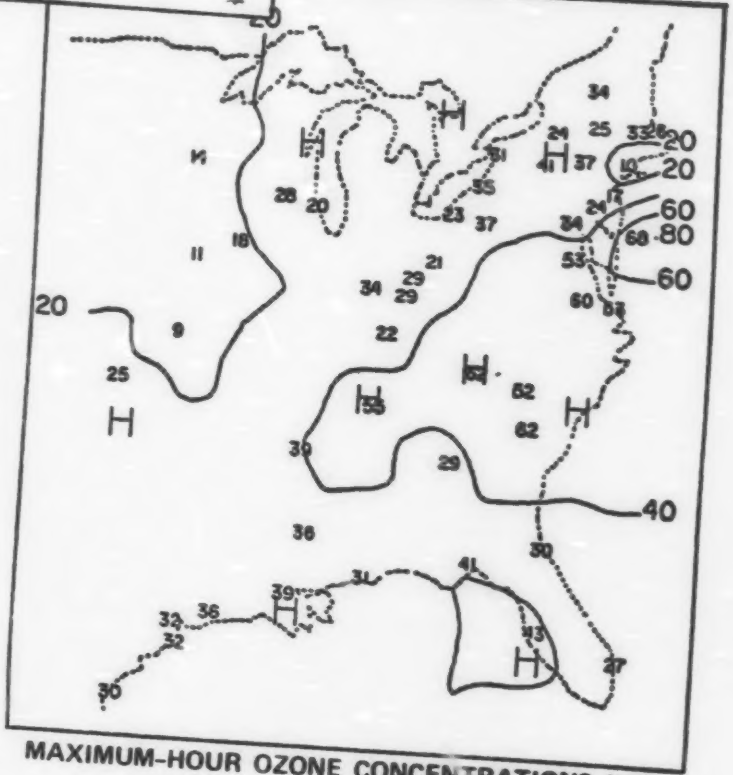
SATURDAY, NOVEMBER 2, 1974



1200 GMT WEATHER MAP



MAXIMUM-MINIMUM TEMPERATURE



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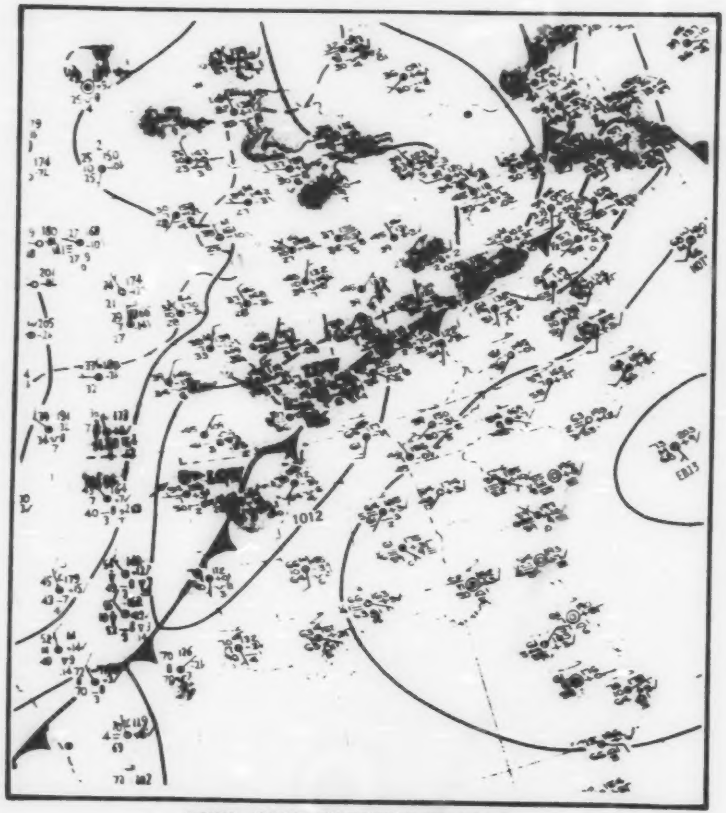
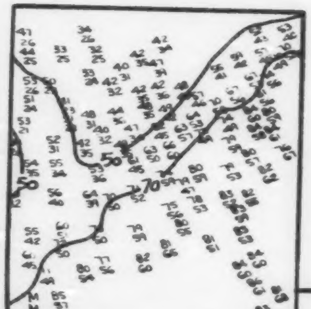
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, NOVEMBER 3, 1974



1200 GMT WEATHER MAP



MAXIMUM-
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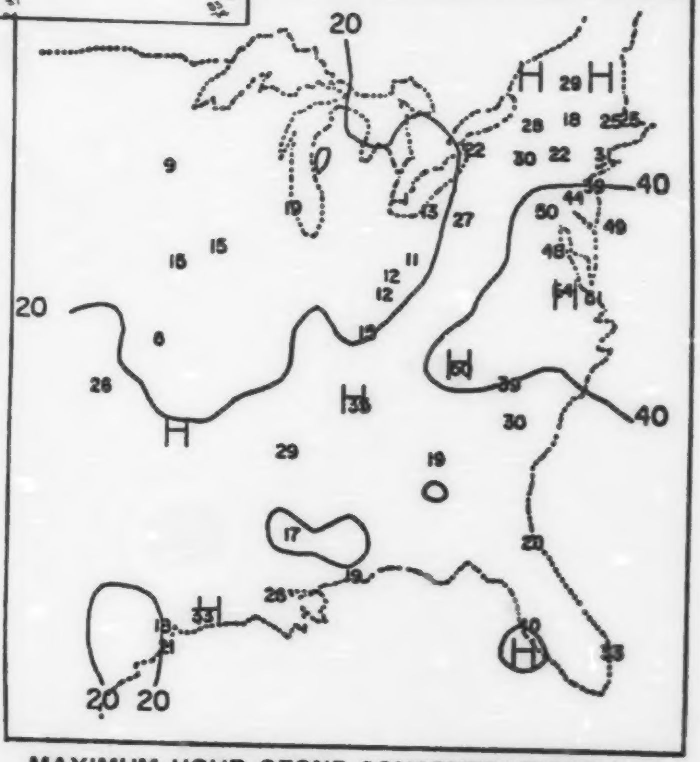
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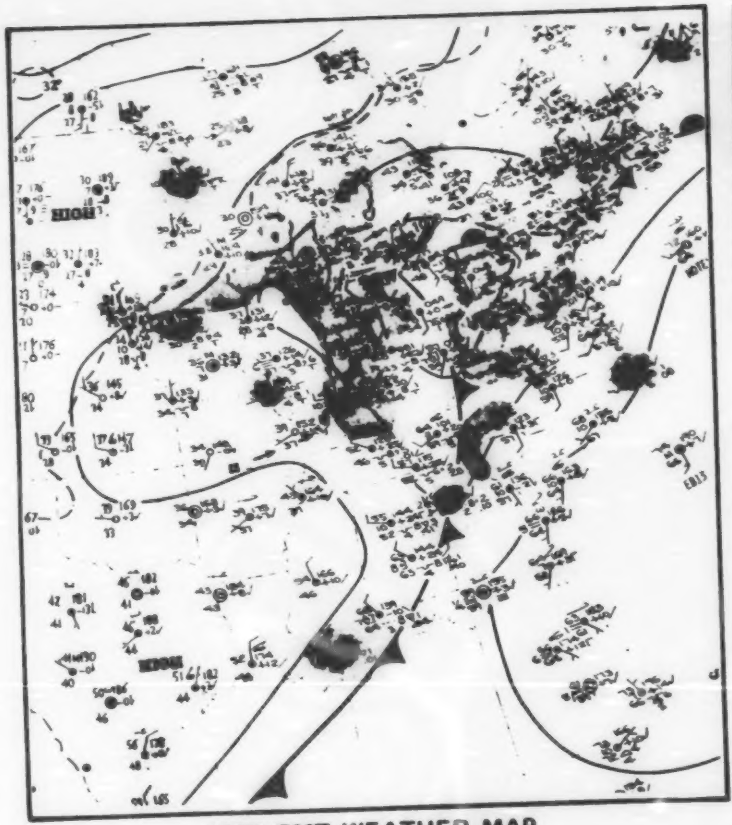
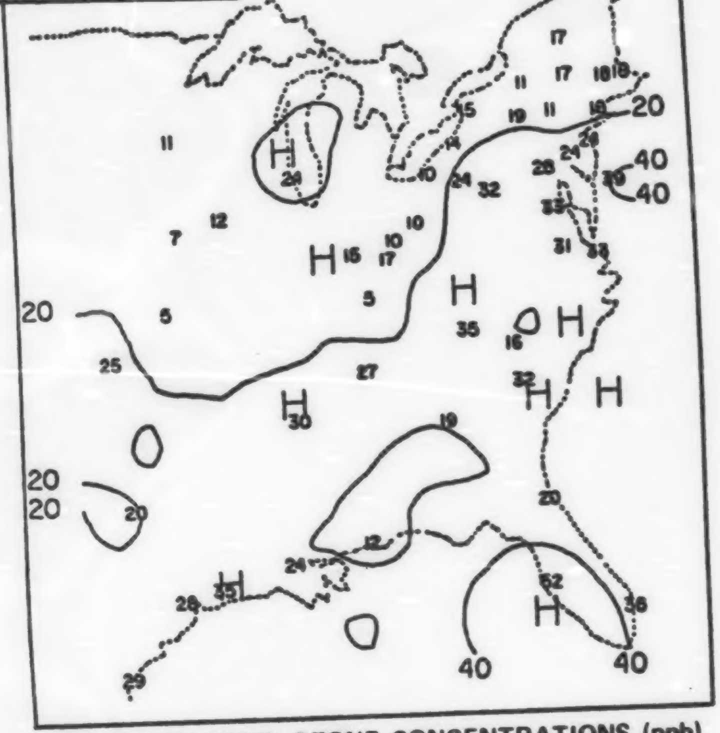
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, NOVEMBER 4, 1974



1200 GMT WEATHER MAP

MAXIMUM-MINIMUM TEMPERATURE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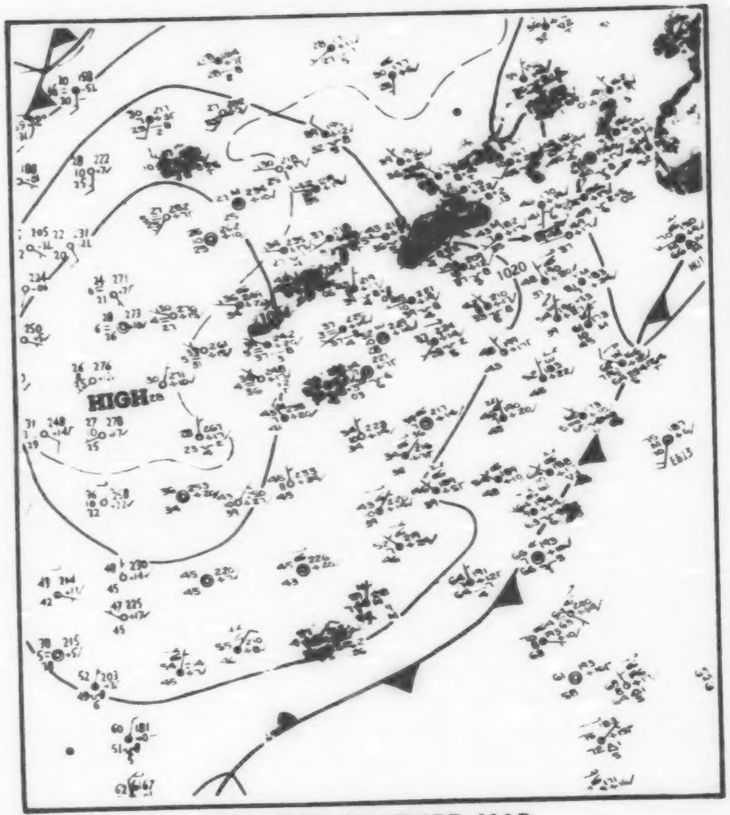
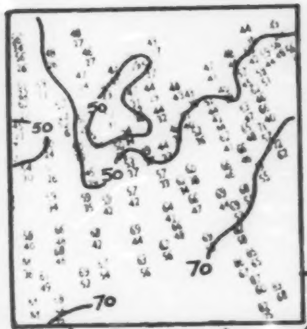
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, NOVEMBER 5, 1974



1200 GMT WEATHER MAP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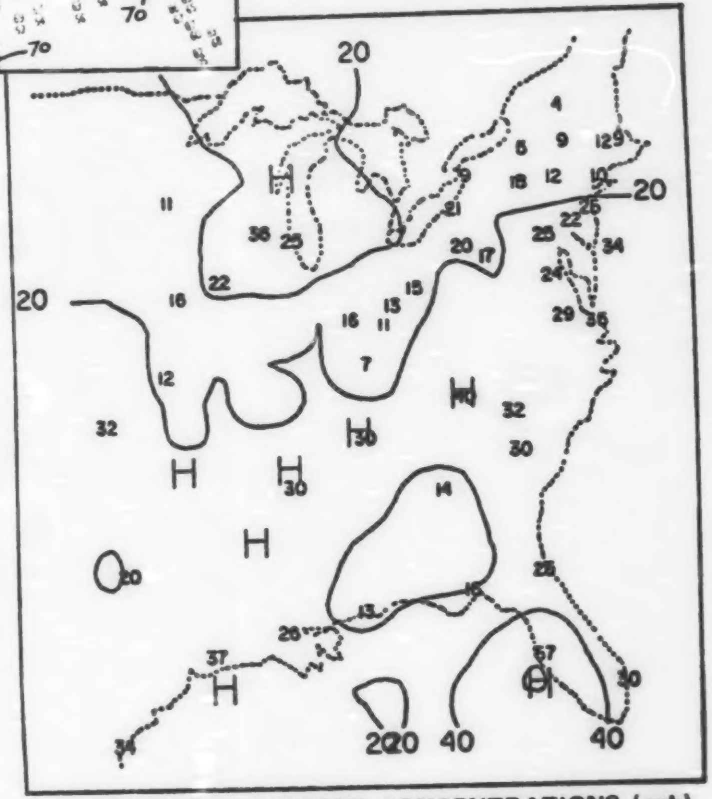
MAXIMUM-
MINIMUM
TEMPERATURE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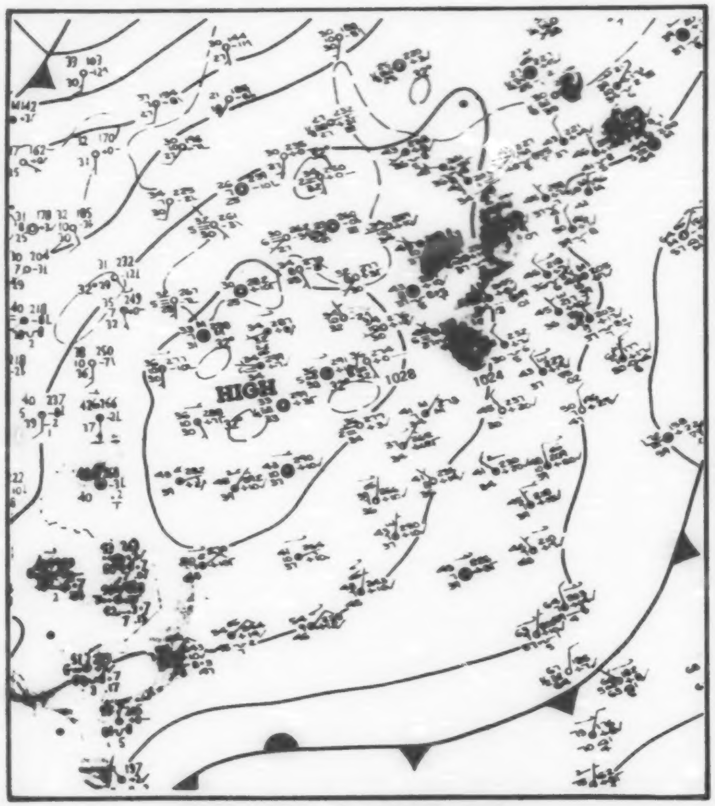
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, NOVEMBER 6, 1974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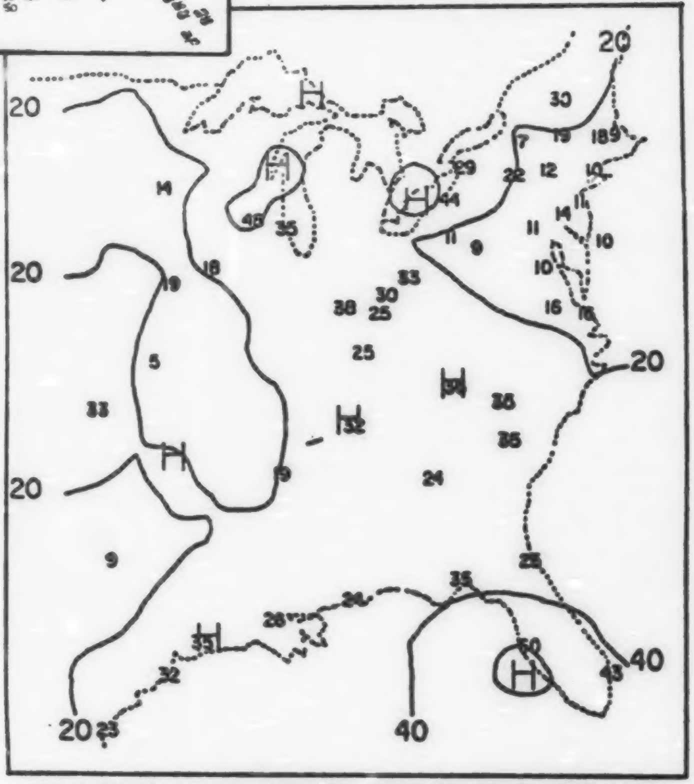
1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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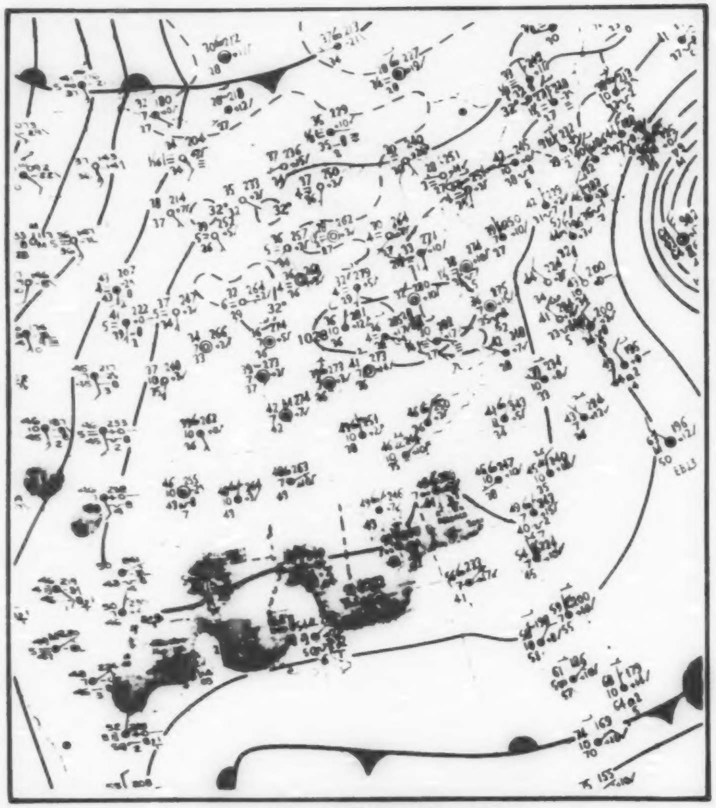
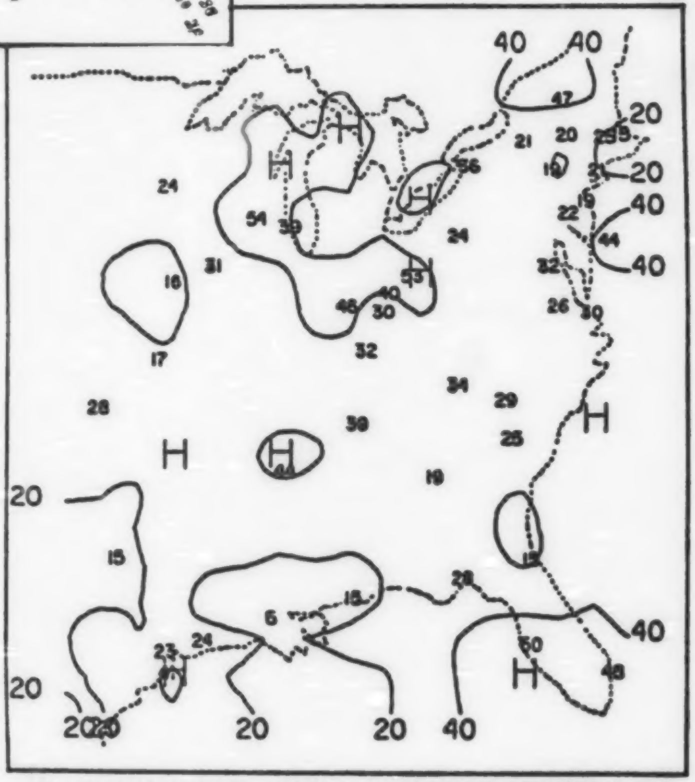
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, NOVEMBER 7, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE



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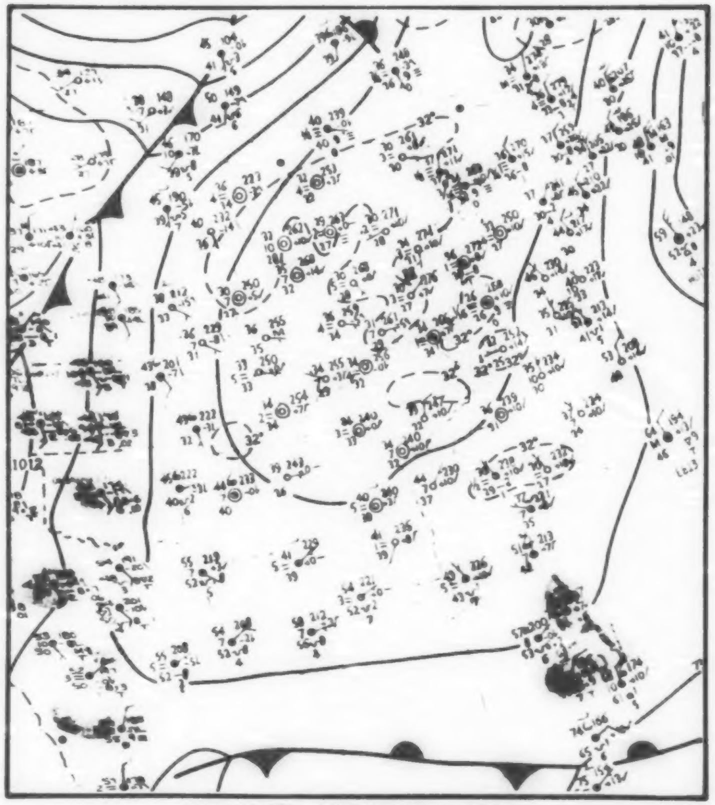
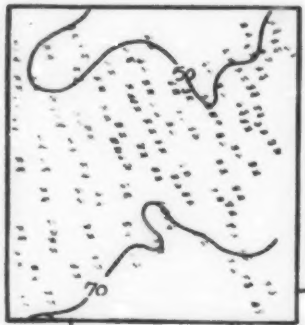
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, NOVEMBER 8, 1974



1200 GMT WEATHER MAP



MAXIMUM-
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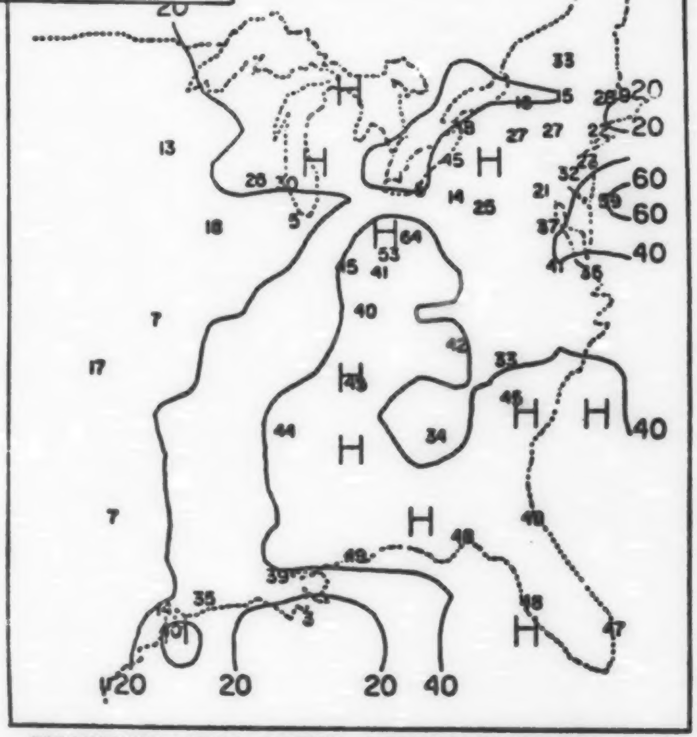
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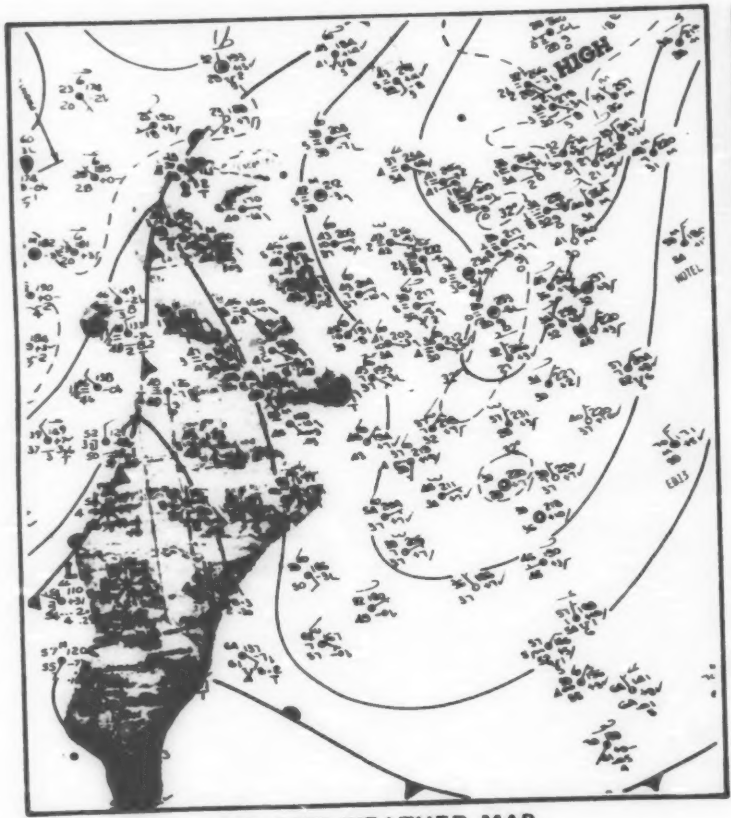
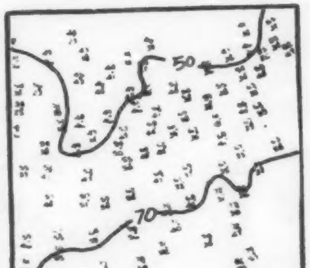
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, NOVEMBER 9, 1974



1200 GMT WEATHER MAP



MAXIMUM-
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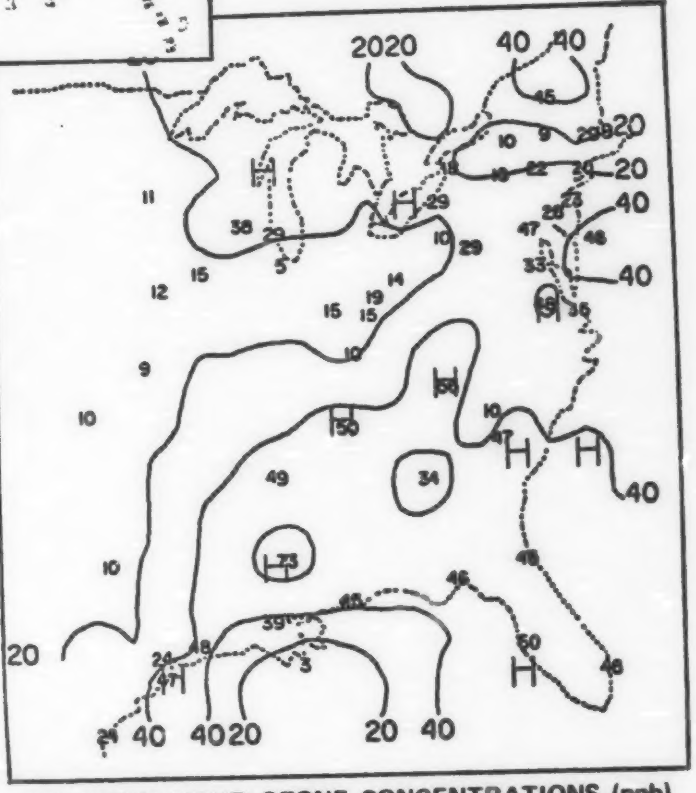
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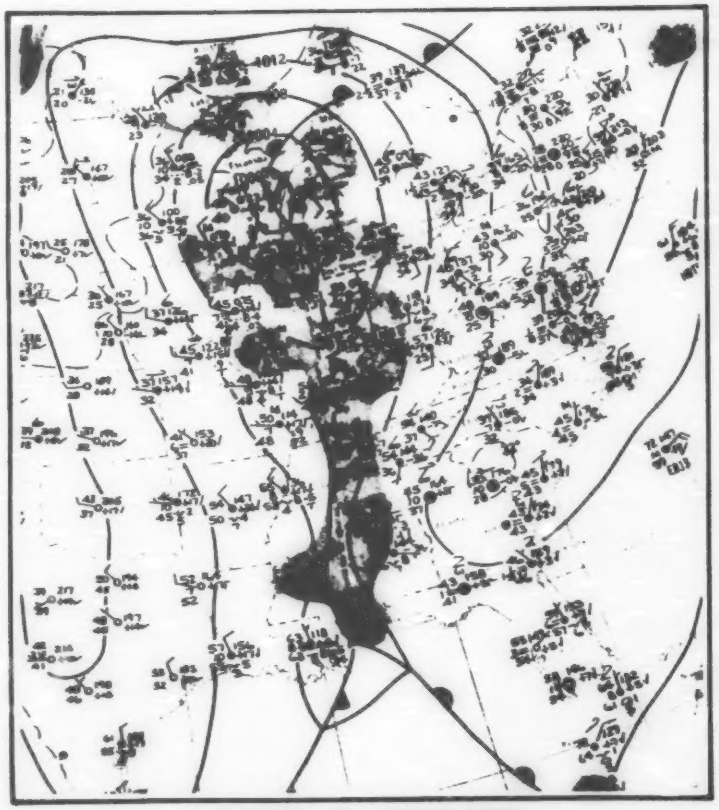
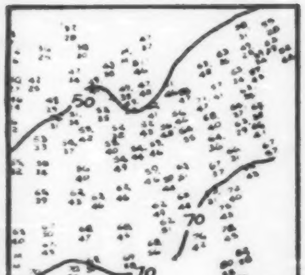
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, NOVEMBER 10, 1974



1200 GMT WEATHER MAP



MAXIMUM-
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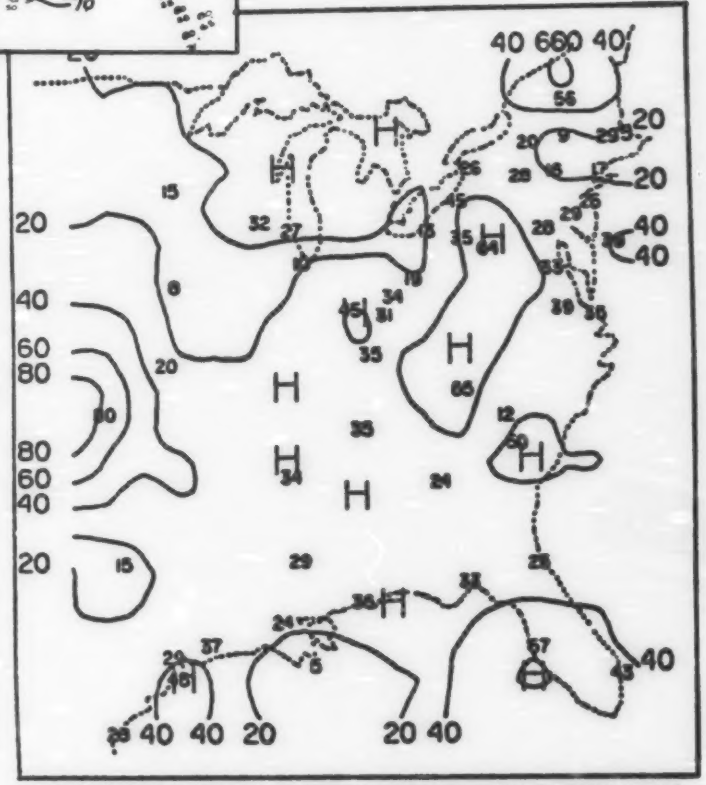
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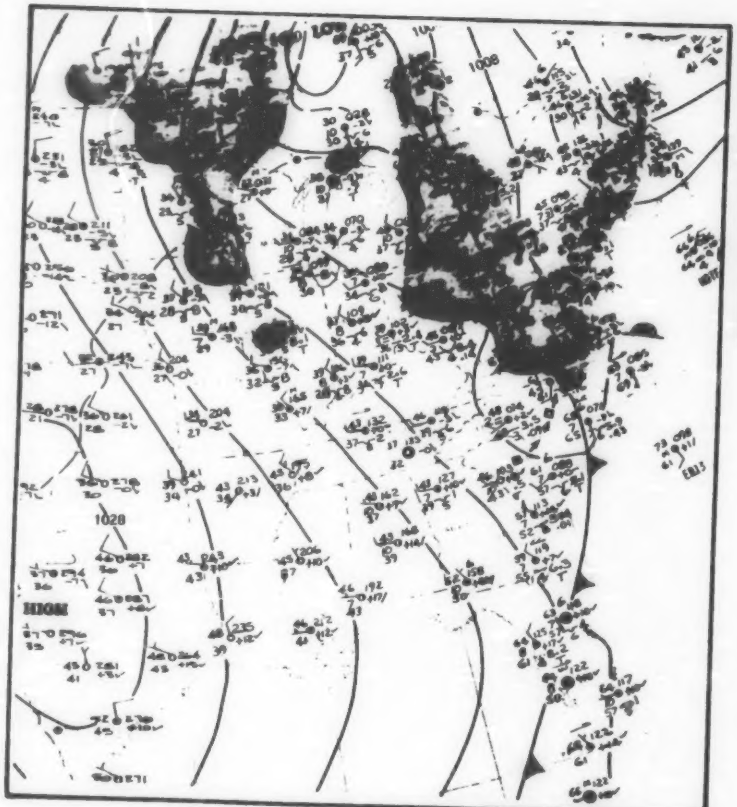
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, NOVEMBER 11, 1974


1008
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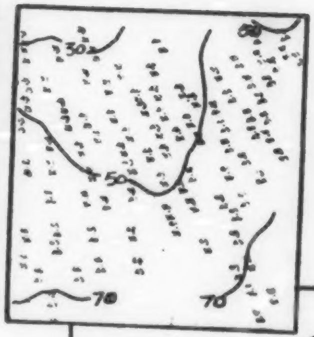
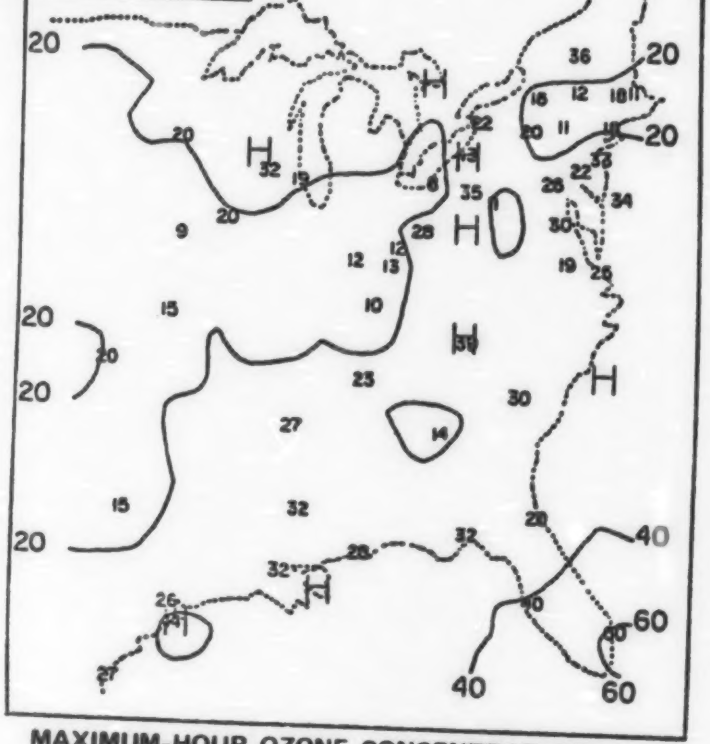
1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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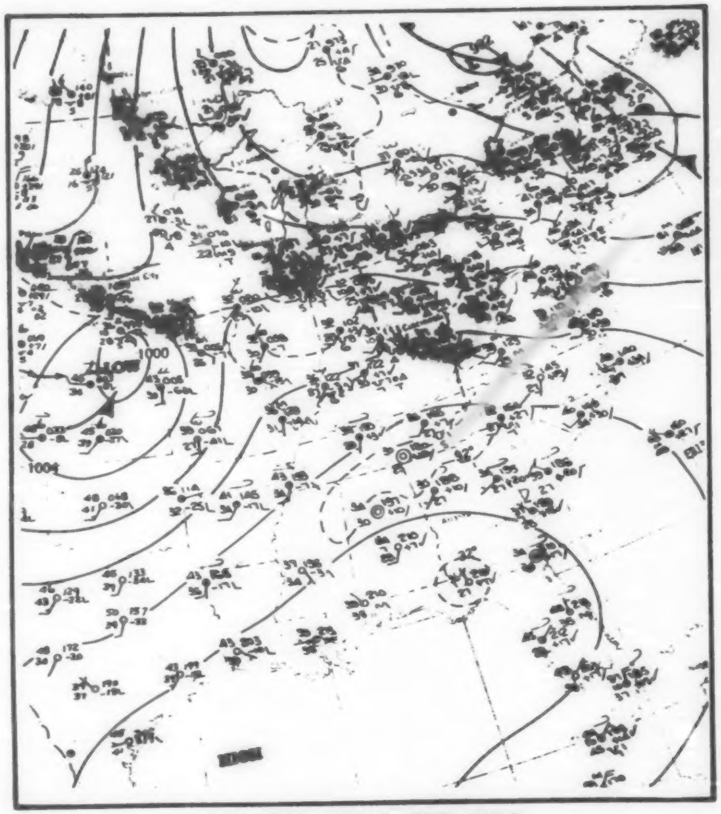
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, NOVEMBER 12, 1974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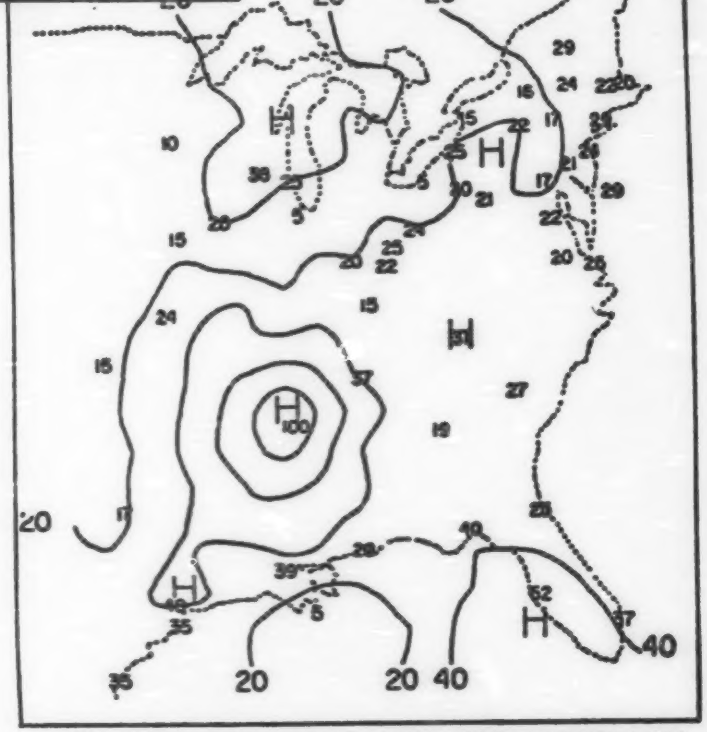
1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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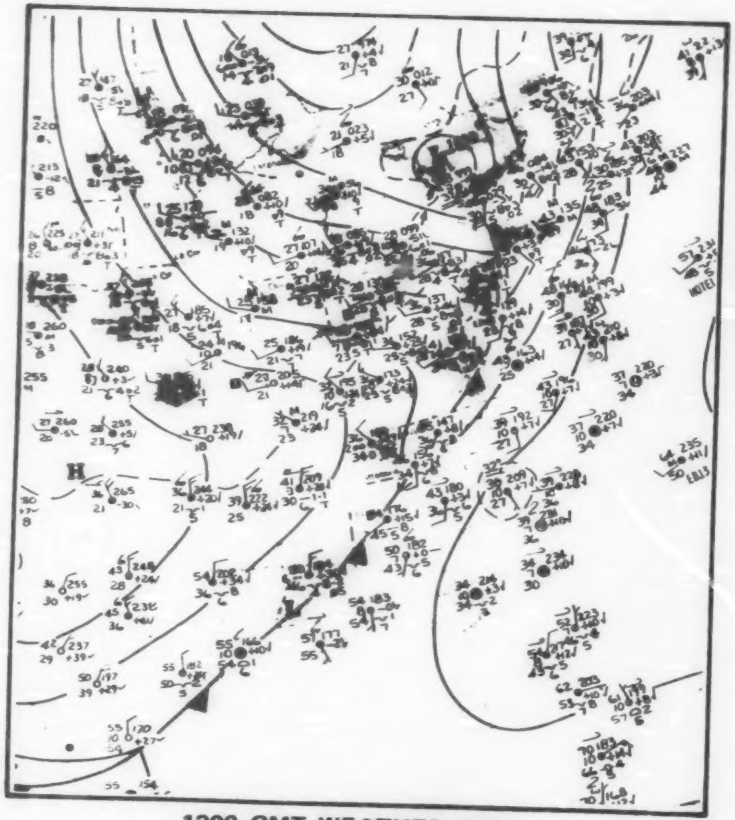
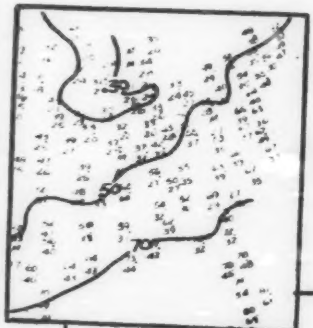
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

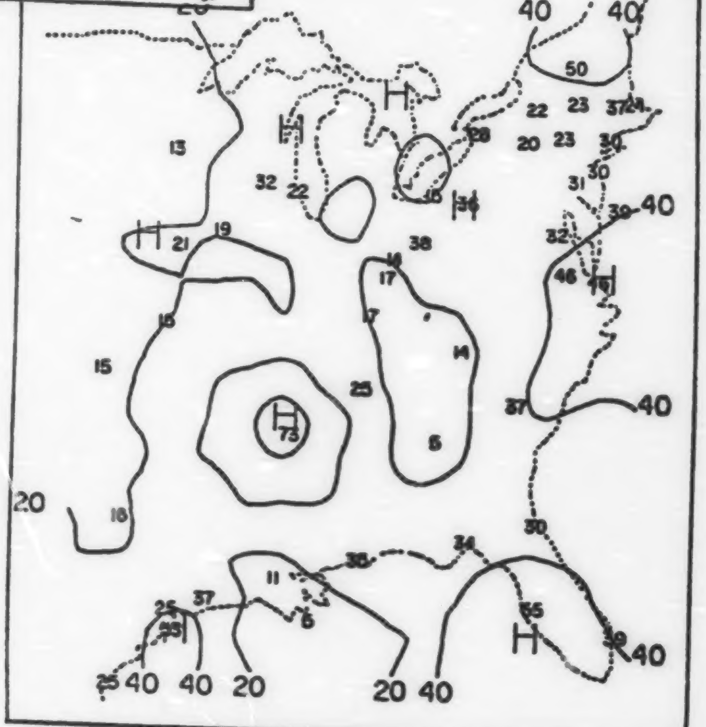
WEDNESDAY, NOVEMBER 13, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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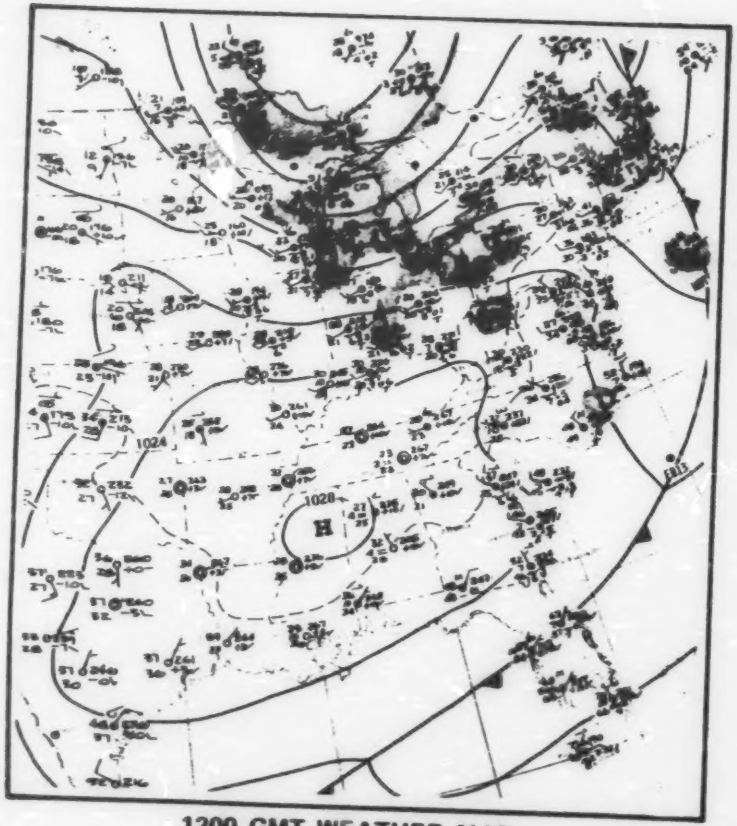
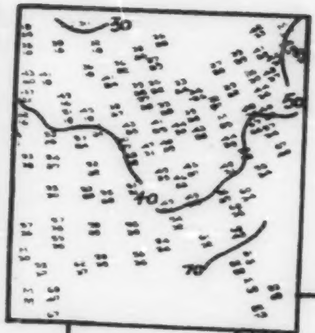
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, NOVEMBER 14, 1974



1200 GMT WEATHER MAP



MAXIMUM-
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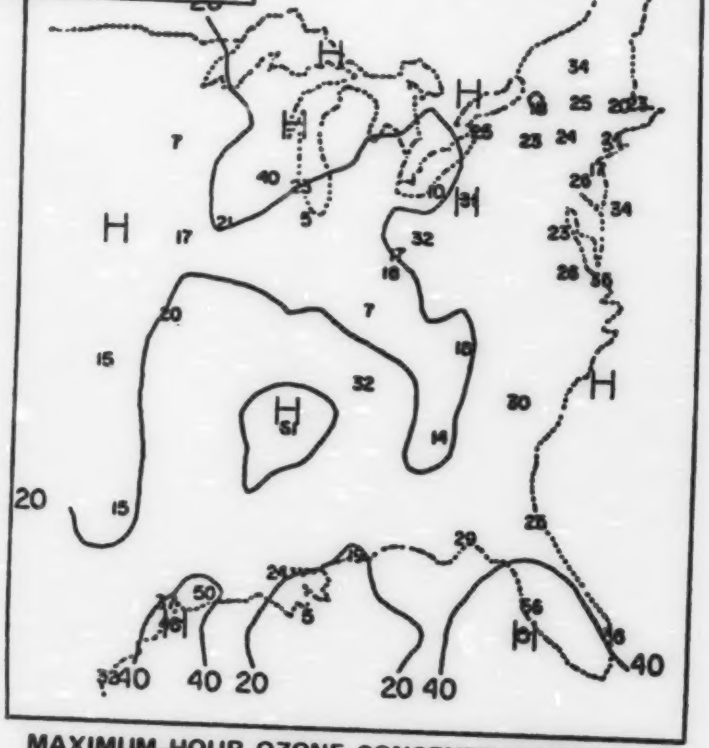
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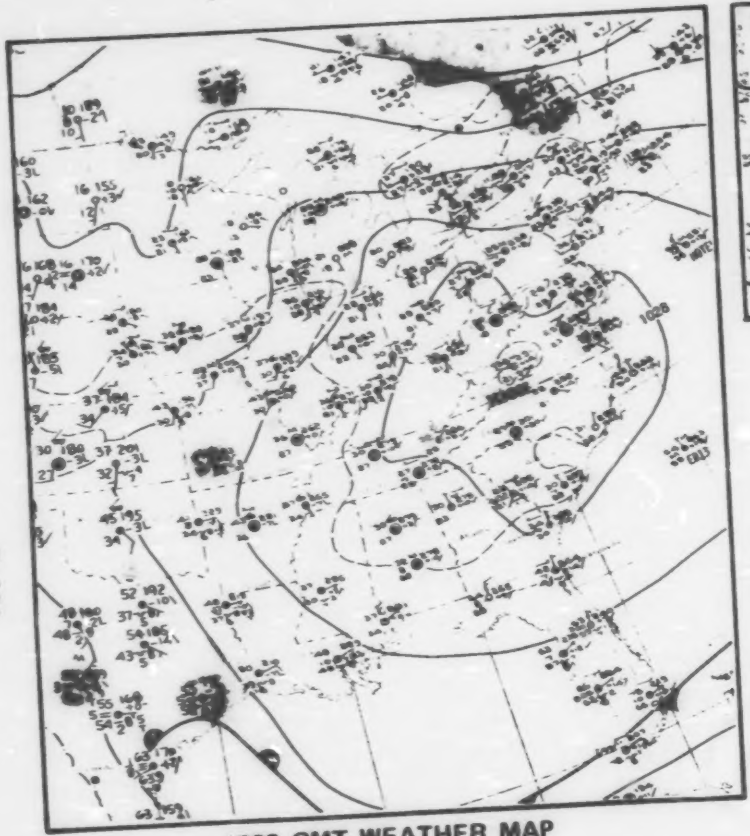
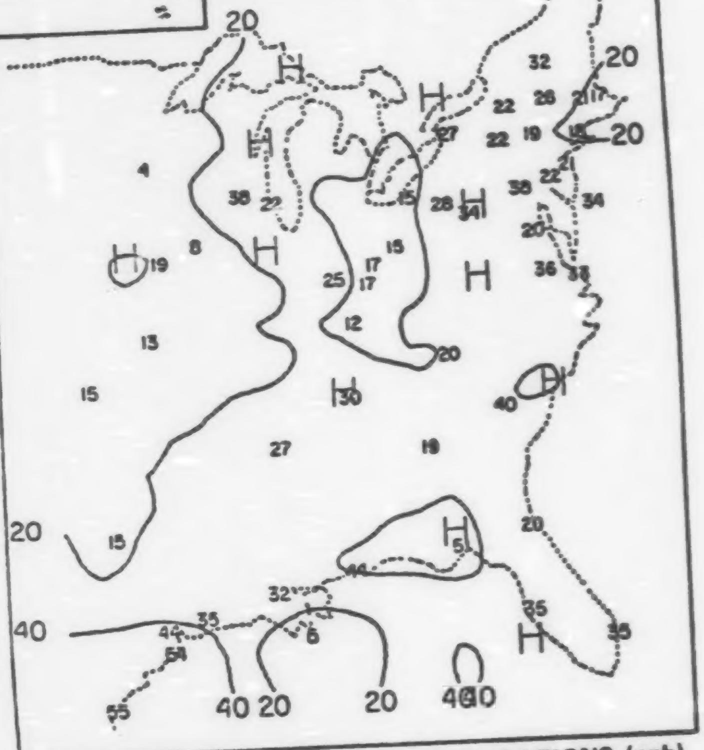
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, NOVEMBER 15, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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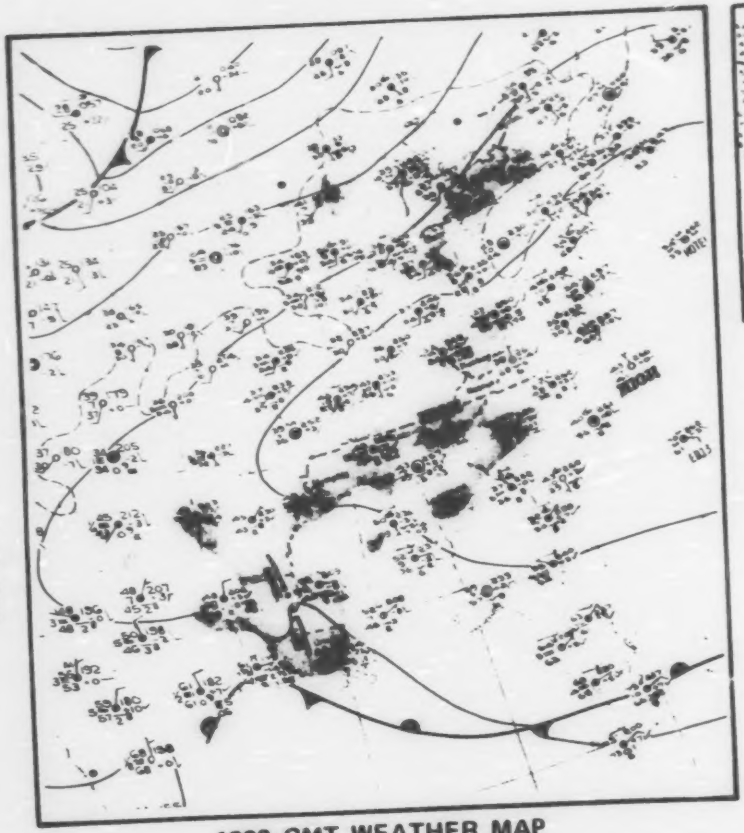
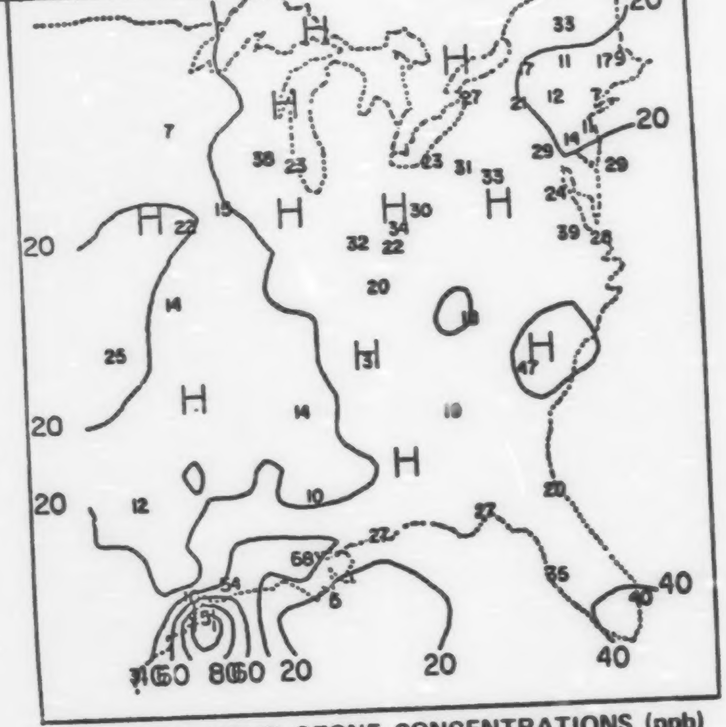
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, NOVEMBER 16, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE



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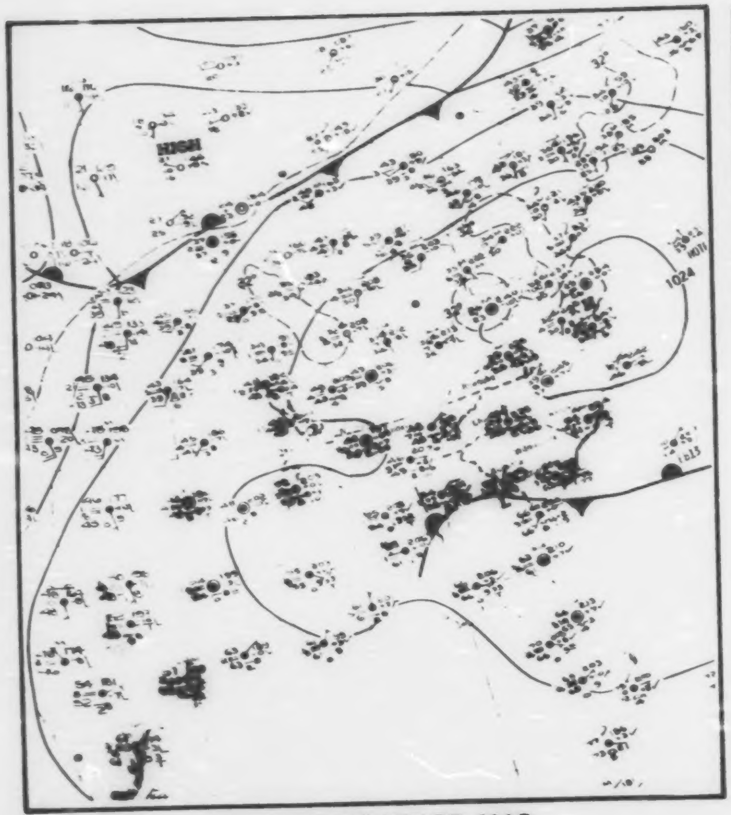
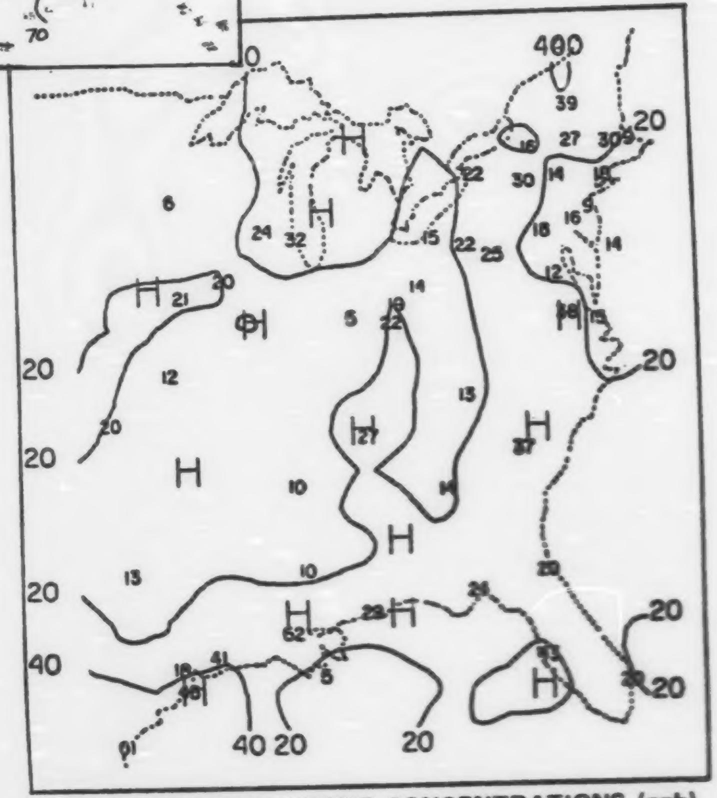
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, NOVEMBER 17, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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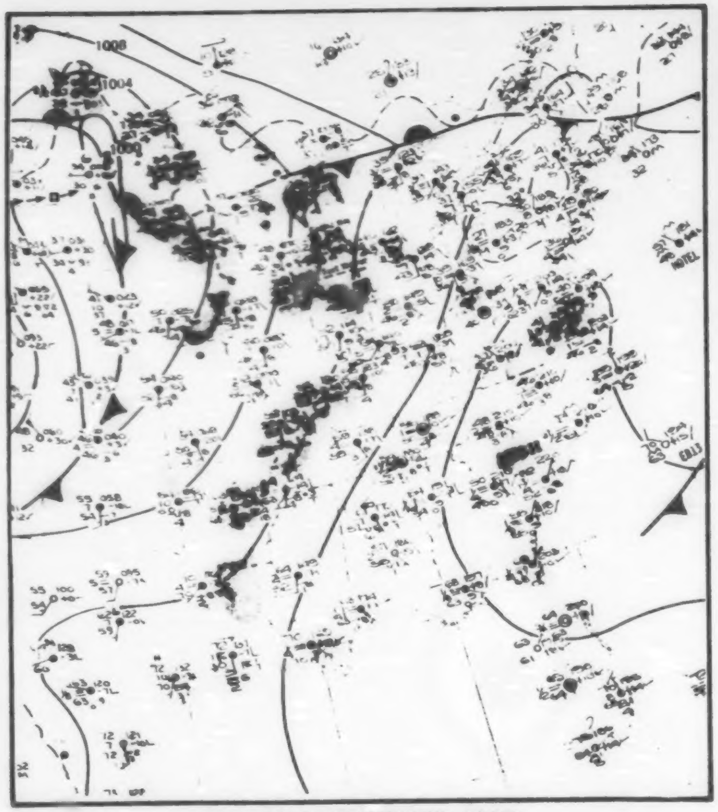
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, NOVEMBER 18, 1974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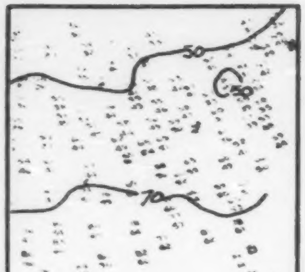
1200 GMT WEATHER MAP



MAXIMUM-
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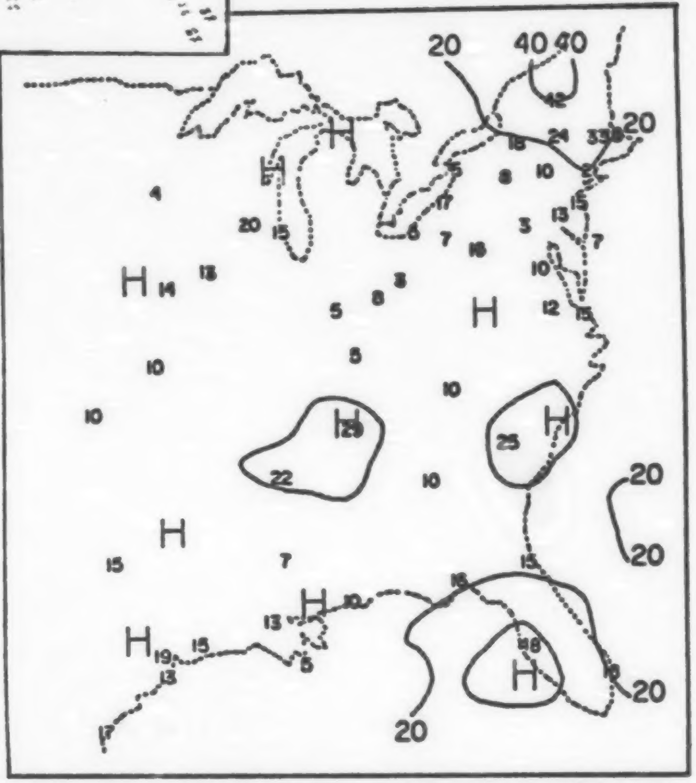
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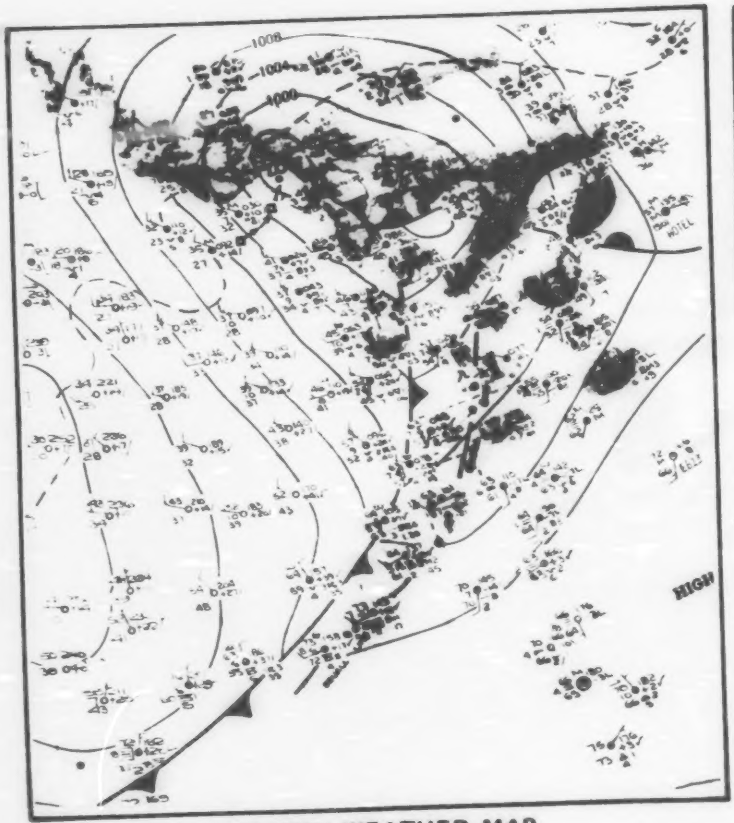
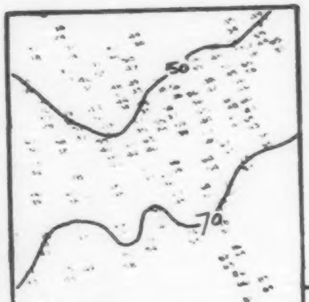
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

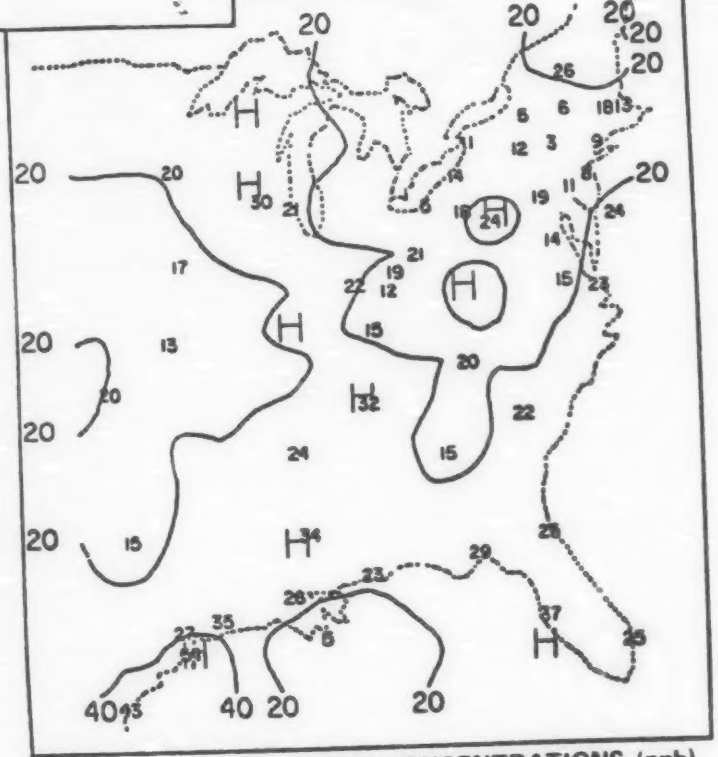
TUESDAY, NOVEMBER 19, 1974


1008
1004
1000
HIGH

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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1813
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241
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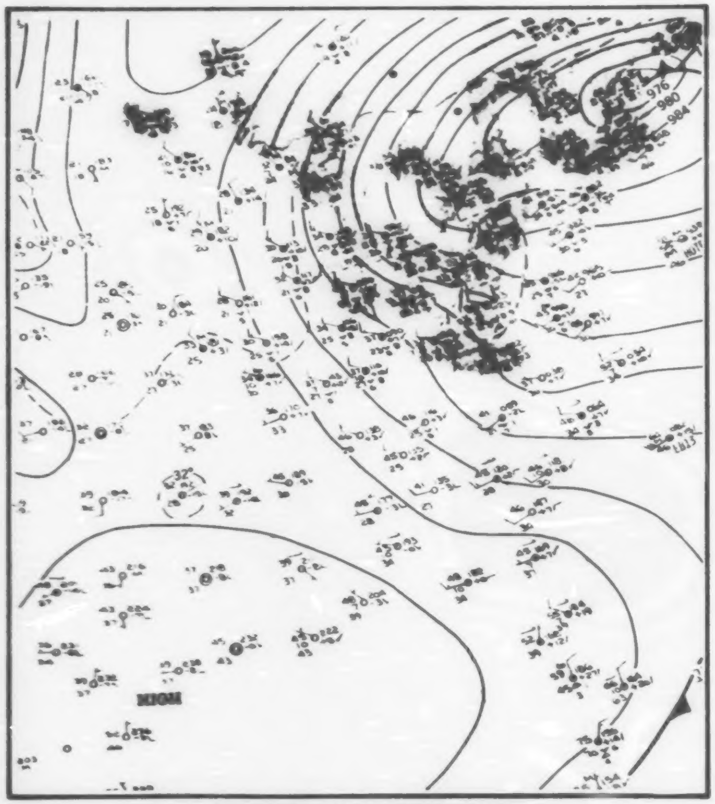
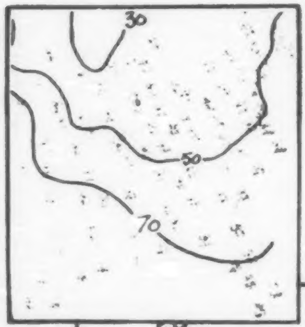
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

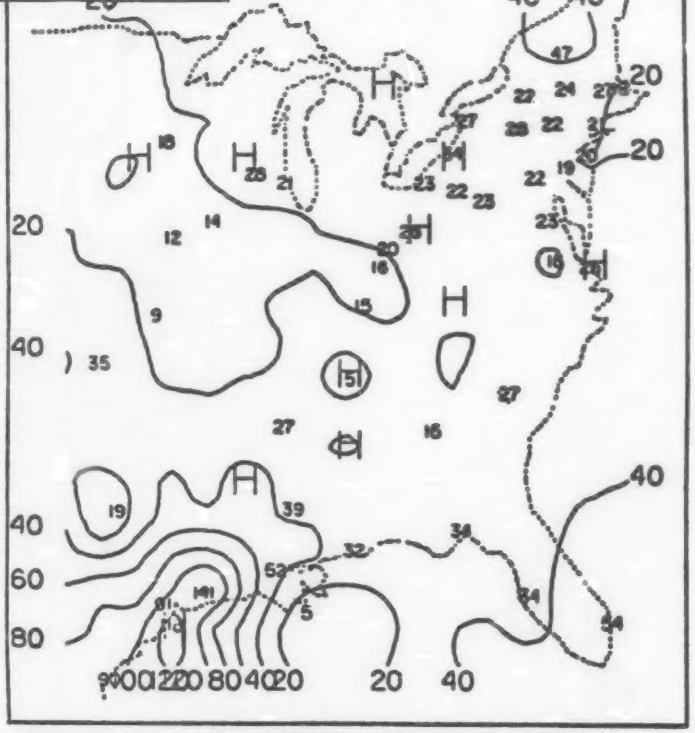
WEDNESDAY, NOVEMBER 20, 1974


976
980
984
HIGH

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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80
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151
141
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900
1220
80
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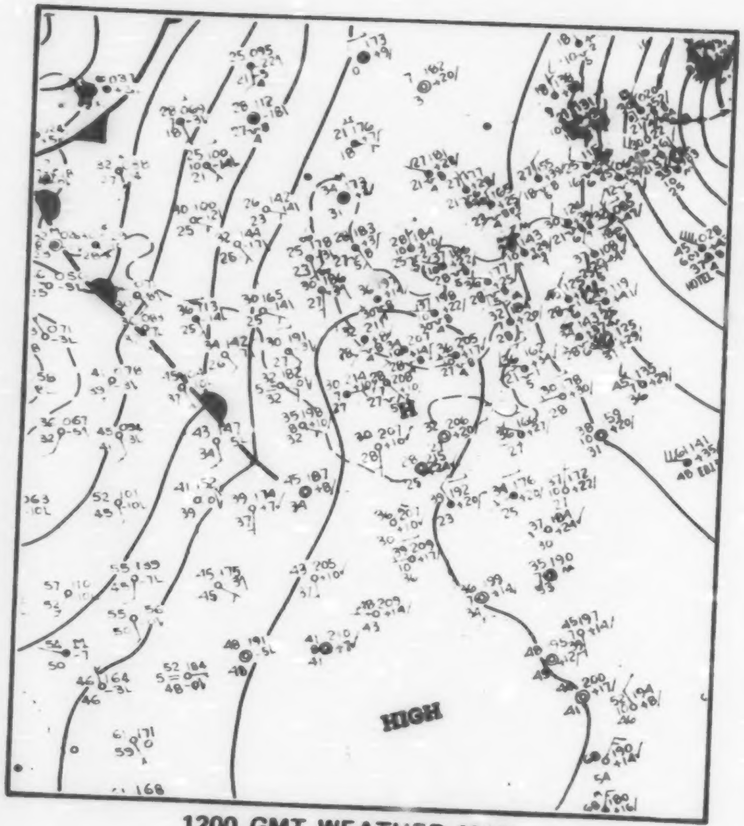
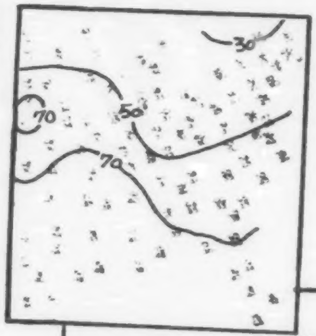
40
20

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

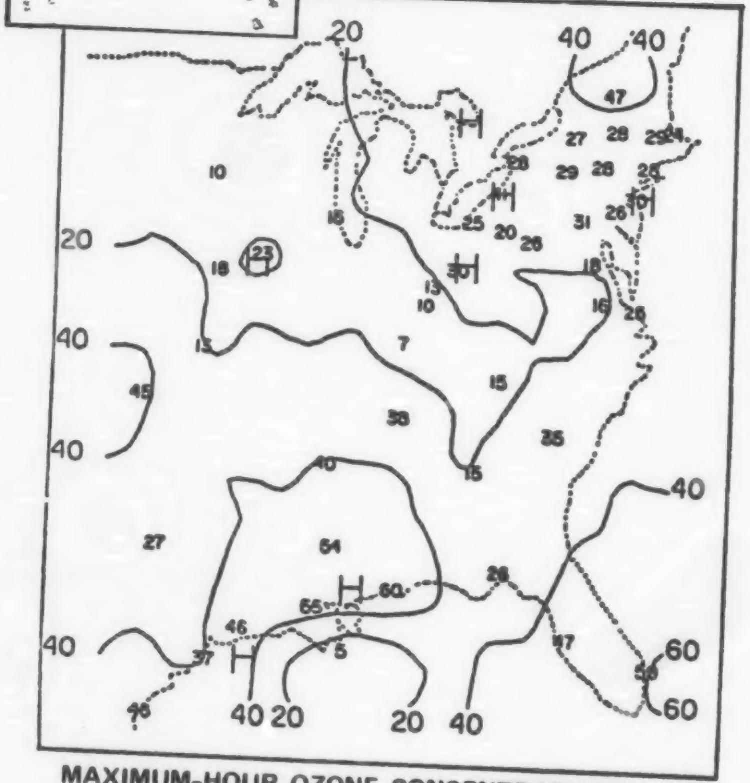
THURSDAY, NOVEMBER 21, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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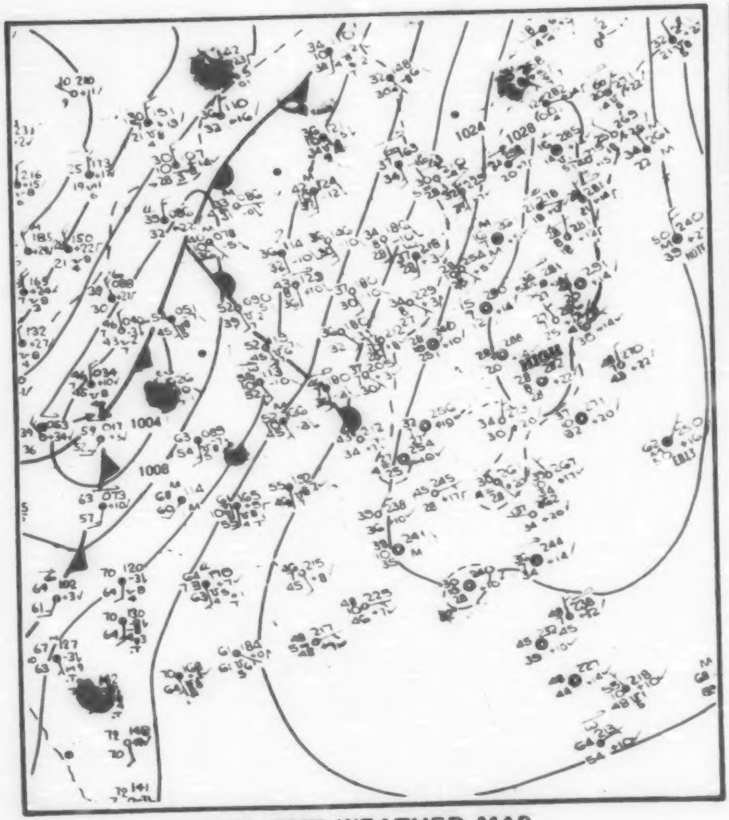
20 40

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, NOVEMBER 22, 1974


1024
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1004
1008
HIGH

1200 GMT WEATHER MAP

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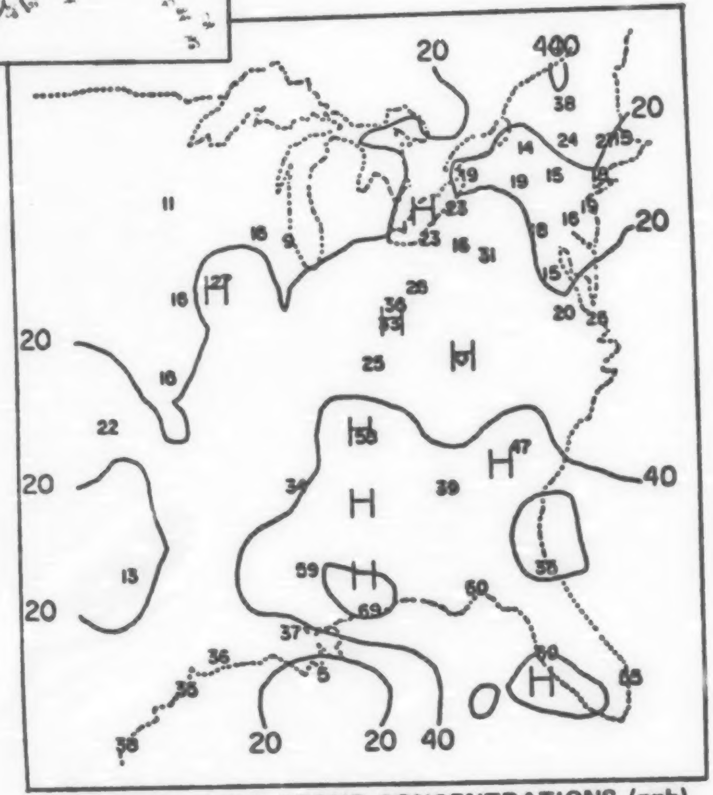
MAXIMUM-
MINIMUM
TEMPERATURE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59
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69
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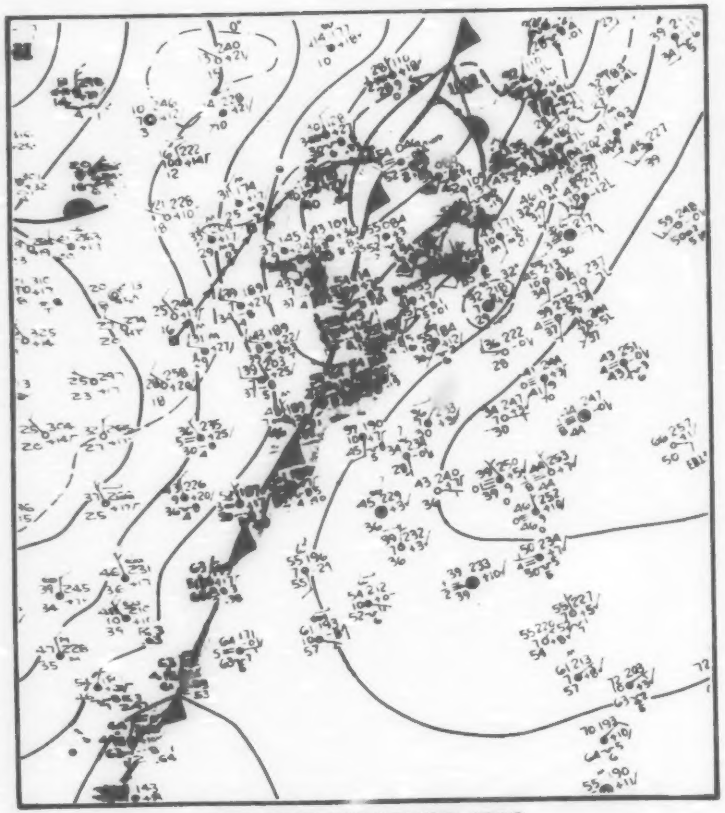
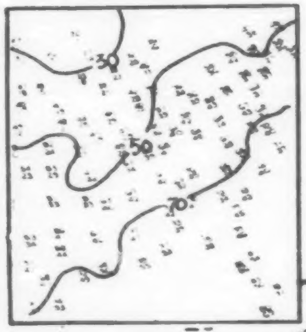
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

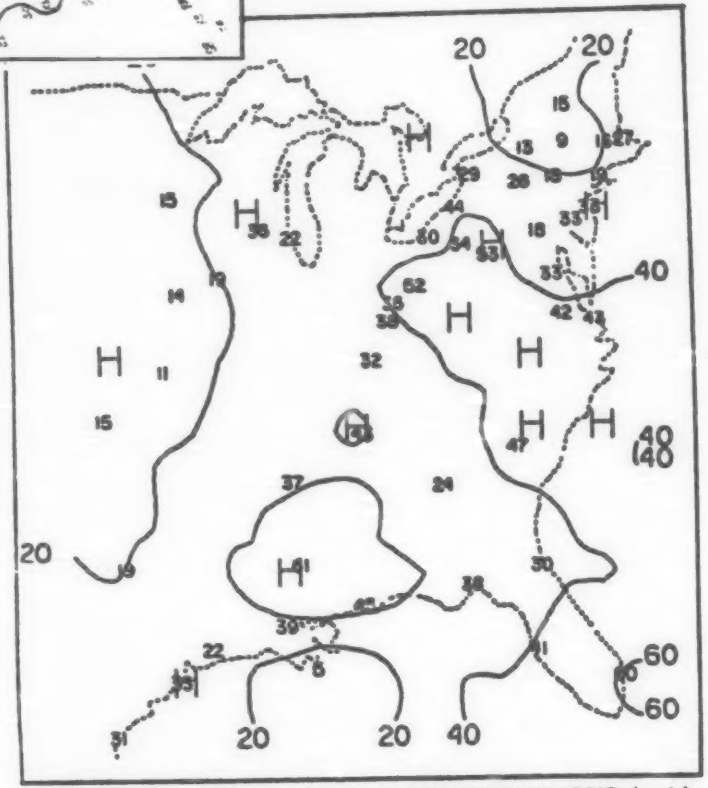
SATURDAY, NOVEMBER 23, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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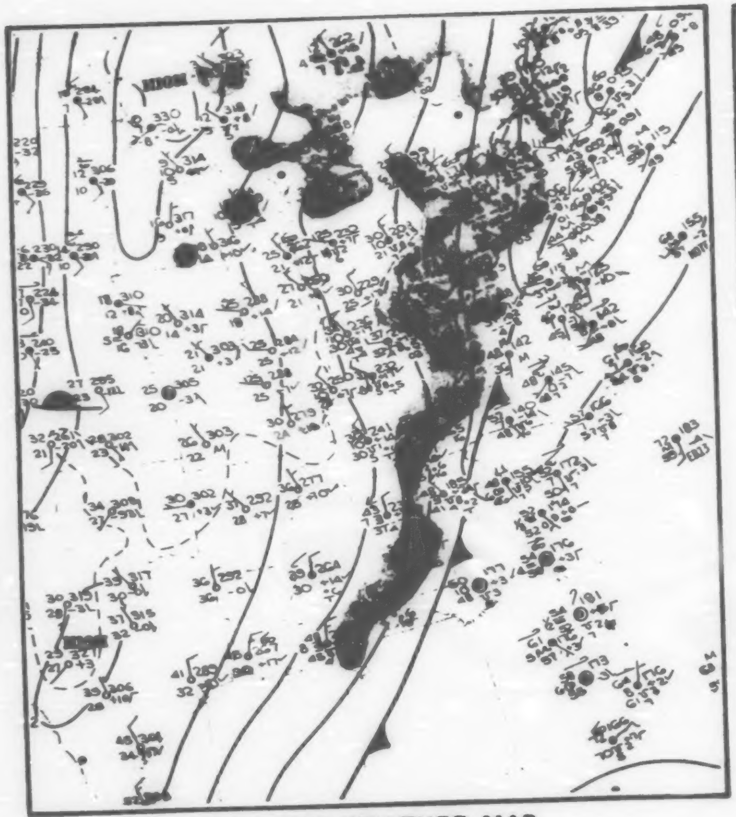
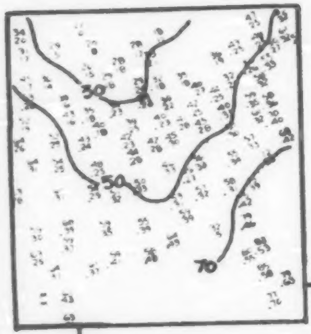
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

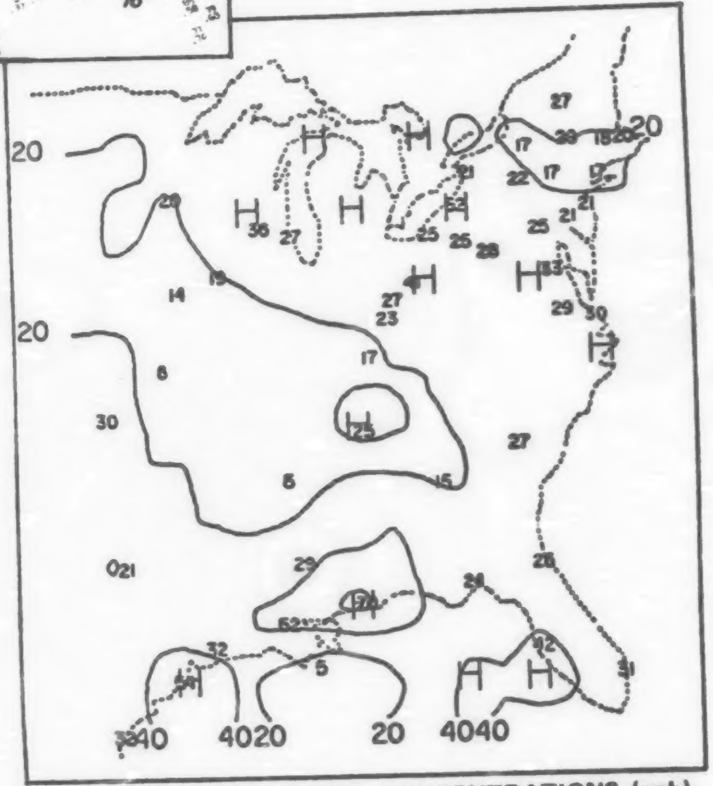
SUNDAY, NOVEMBER 24, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE



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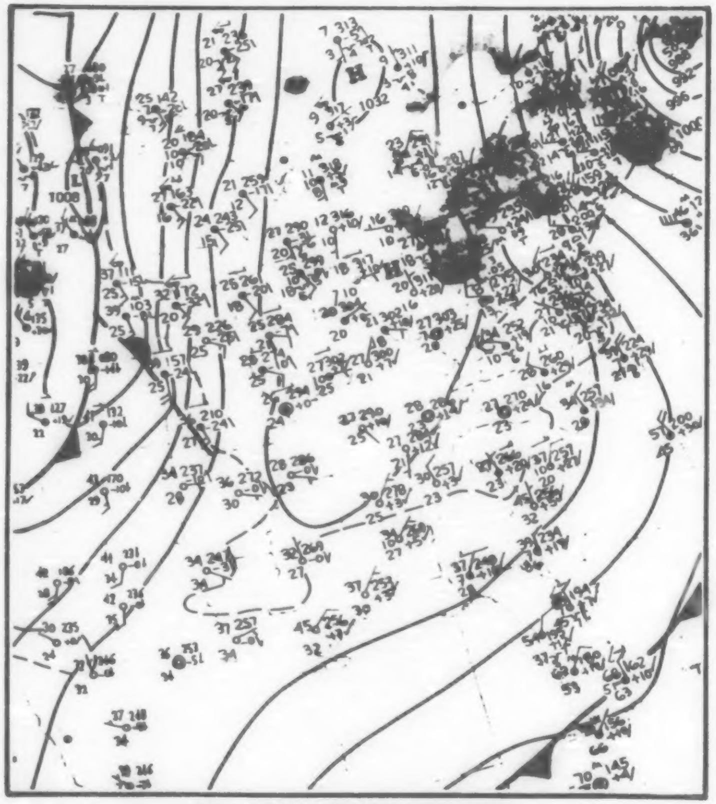
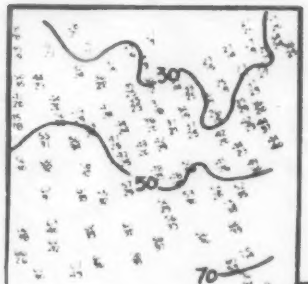
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

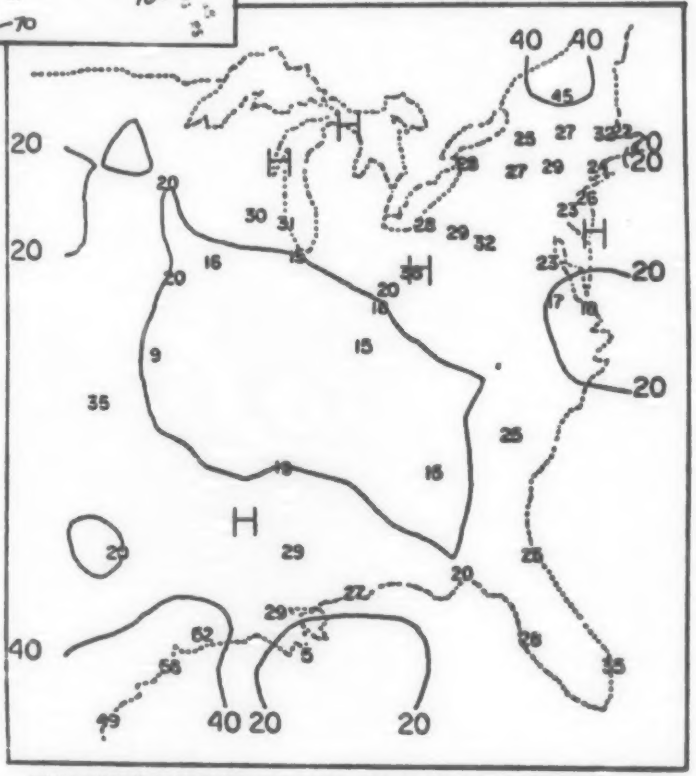
MONDAY, NOVEMBER 25, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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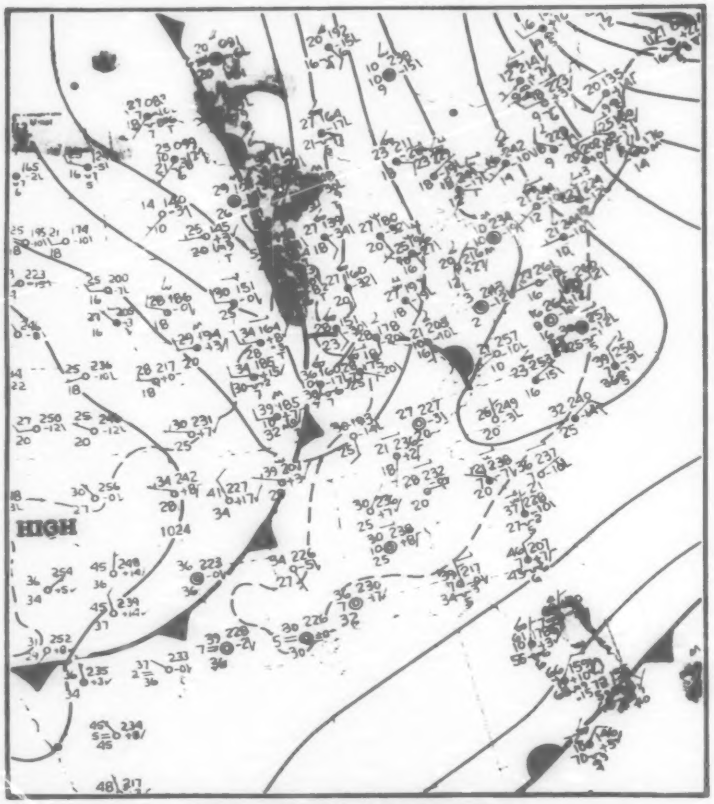
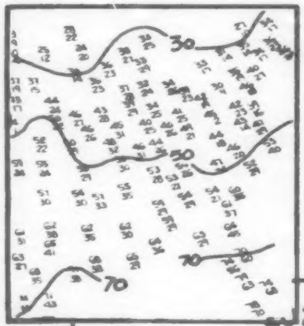
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

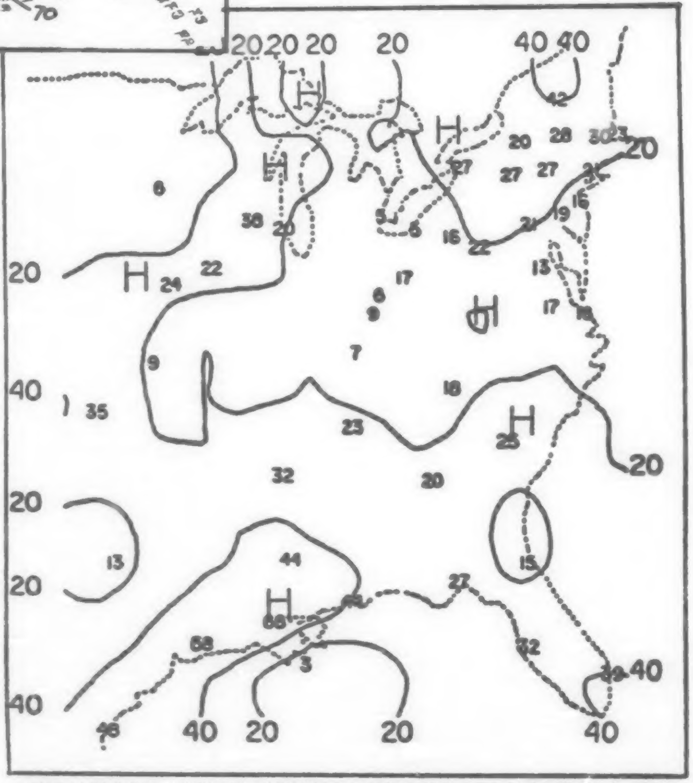
TUESDAY, NOVEMBER 26, 1974



## 1200 GMT WEATHER MAP



## MAXIMUM-
## MINIMUM
## TEMPERATURE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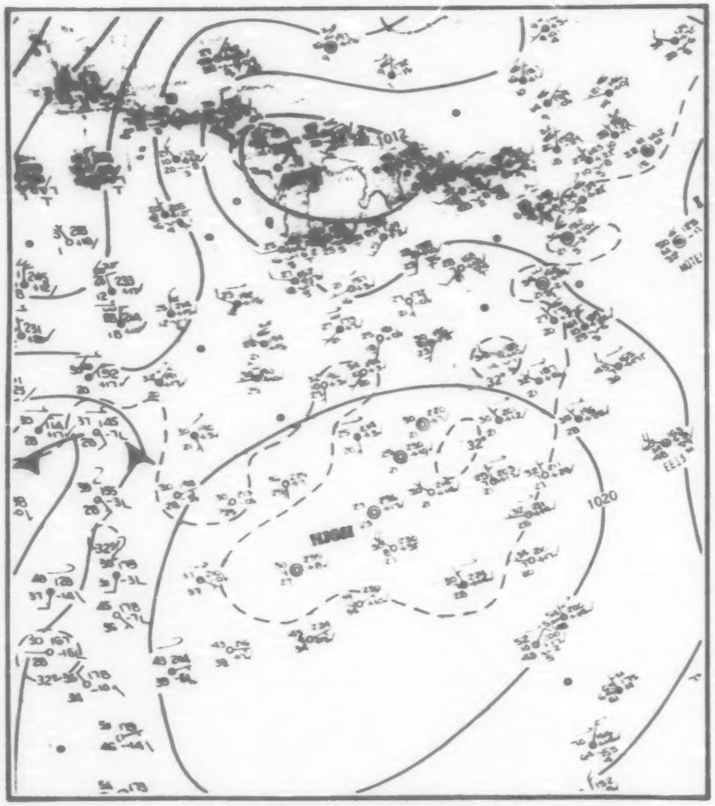
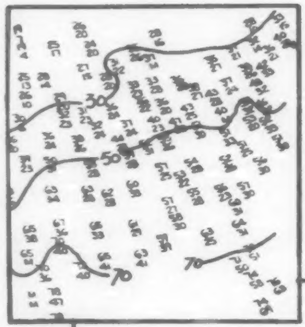
## MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

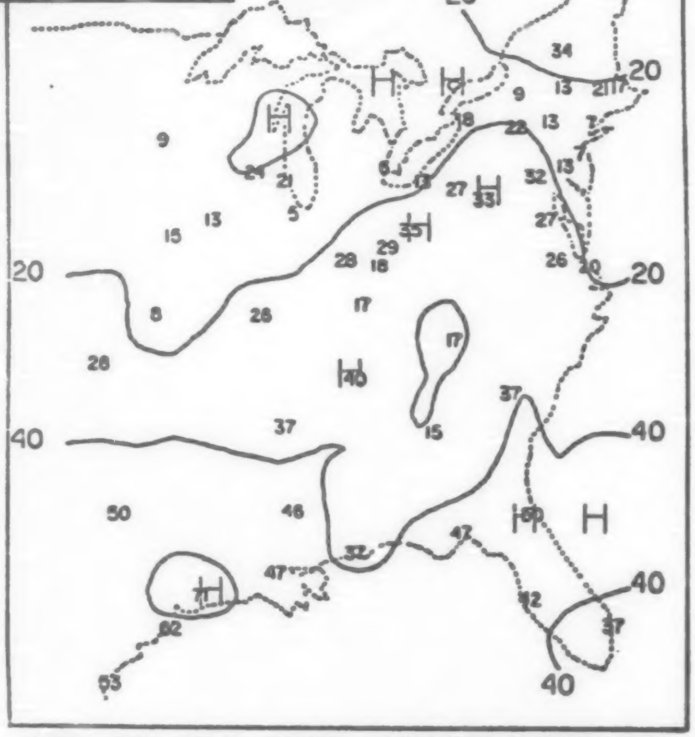
WEDNESDAY, NOVEMBER 27, 1974


1012
1020
HIGH

1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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62
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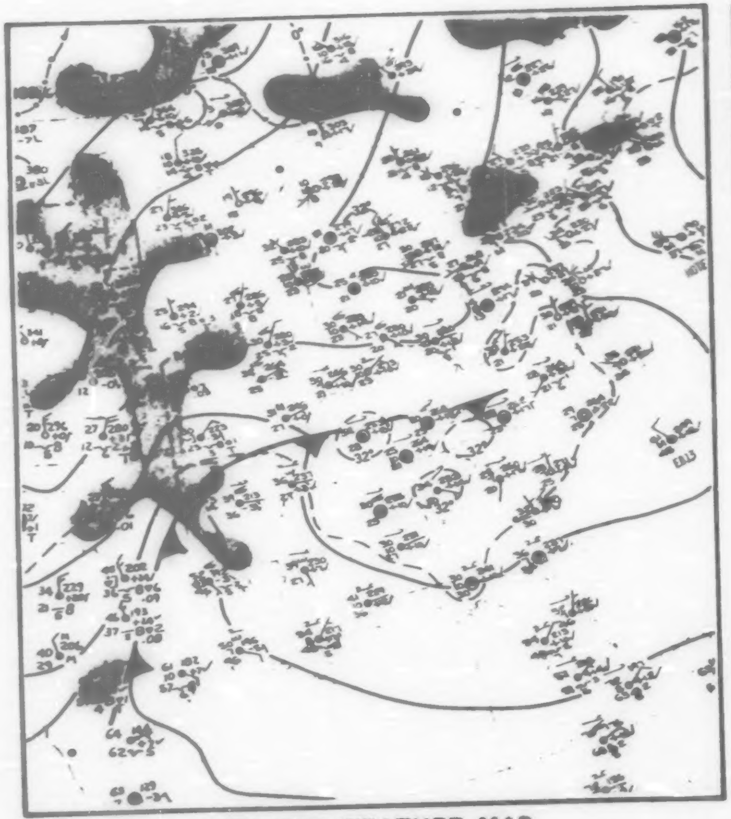
32
37

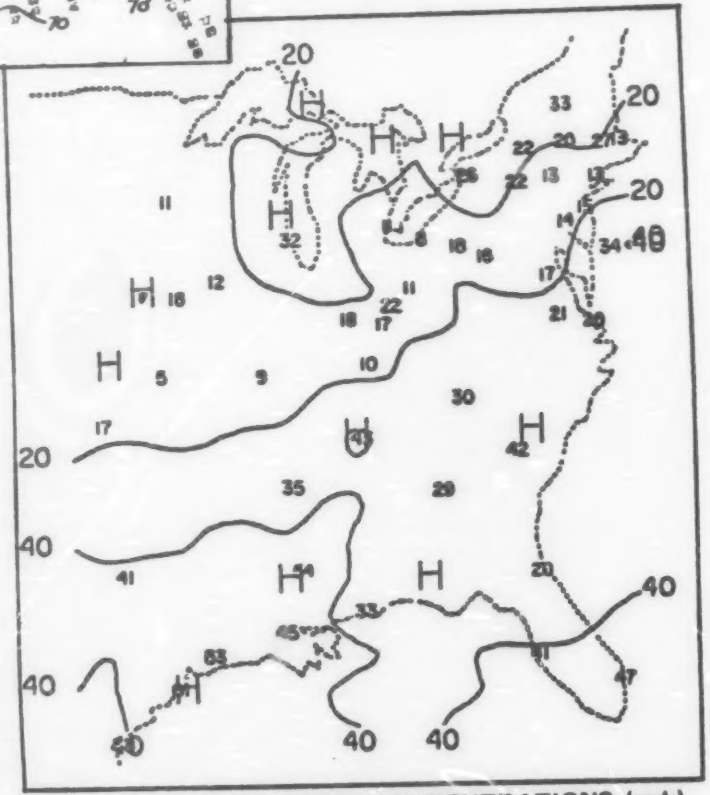
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, NOVEMBER 28, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE



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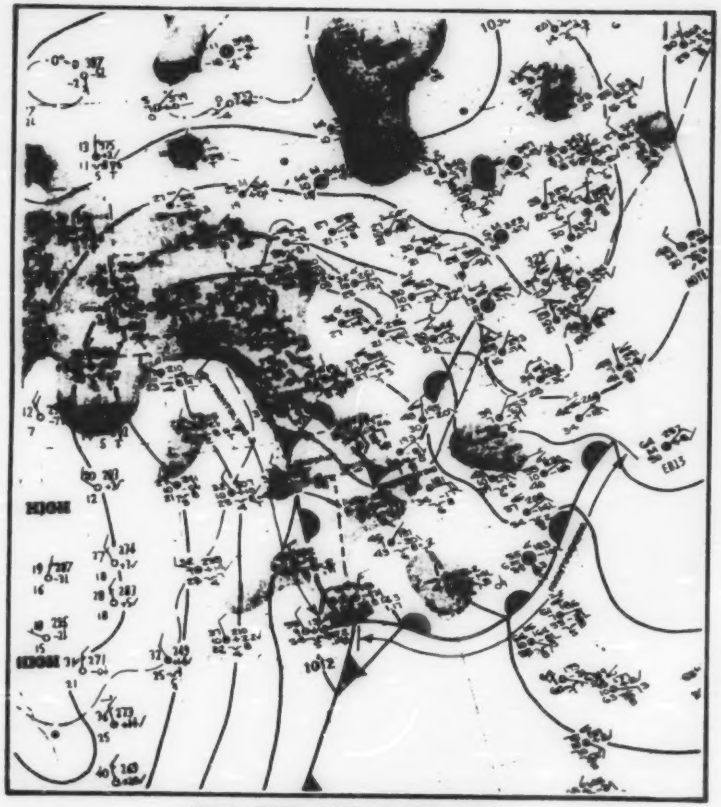
47

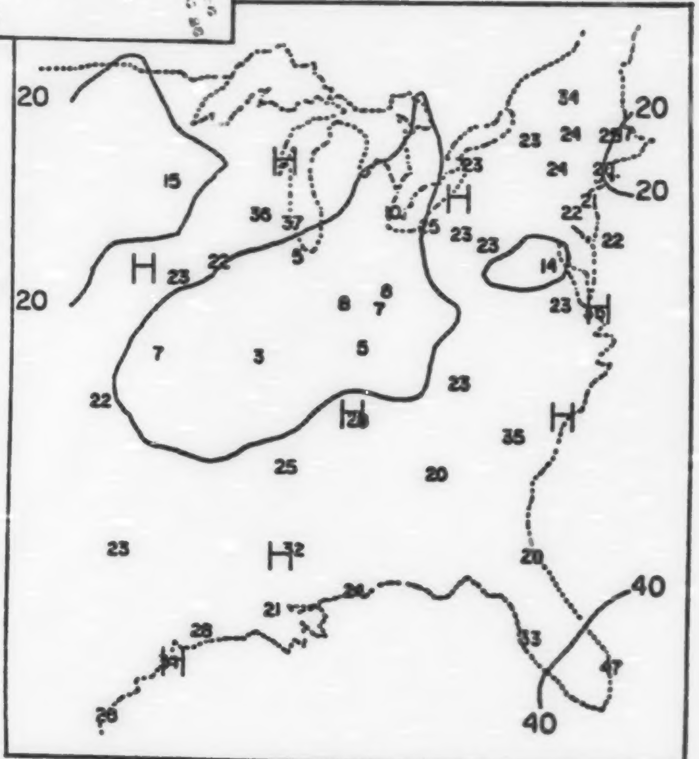
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, NOVEMBER 29, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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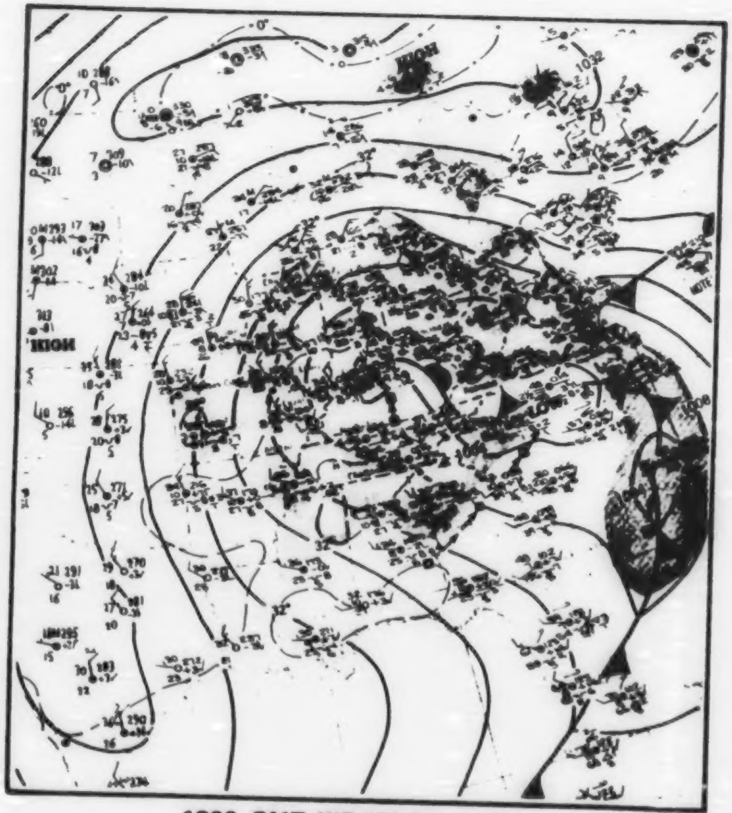
SATURDAY, NOVEMBER 30, 1974

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)



1200 GMT WEATHER MAP

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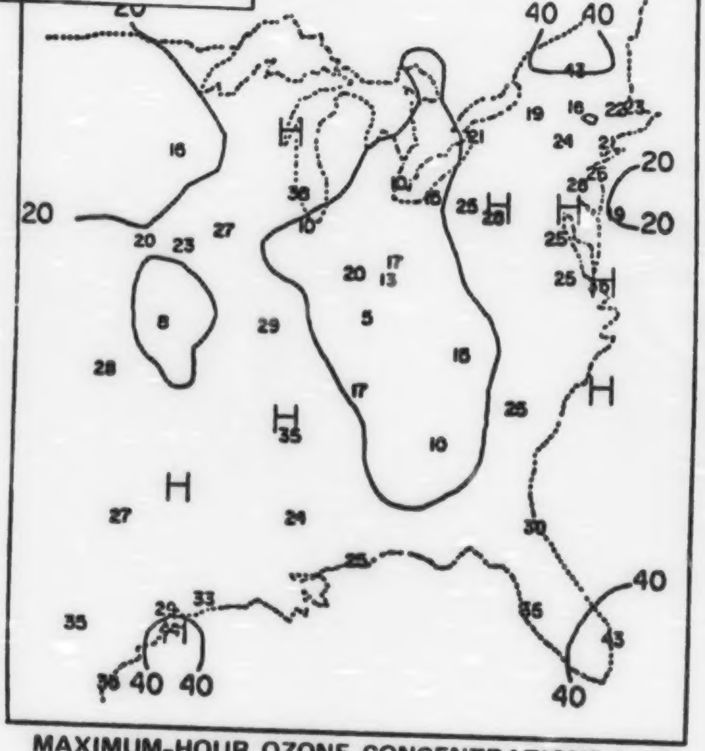
MAXIMUM-
MINIMUM
TEMPERATURE



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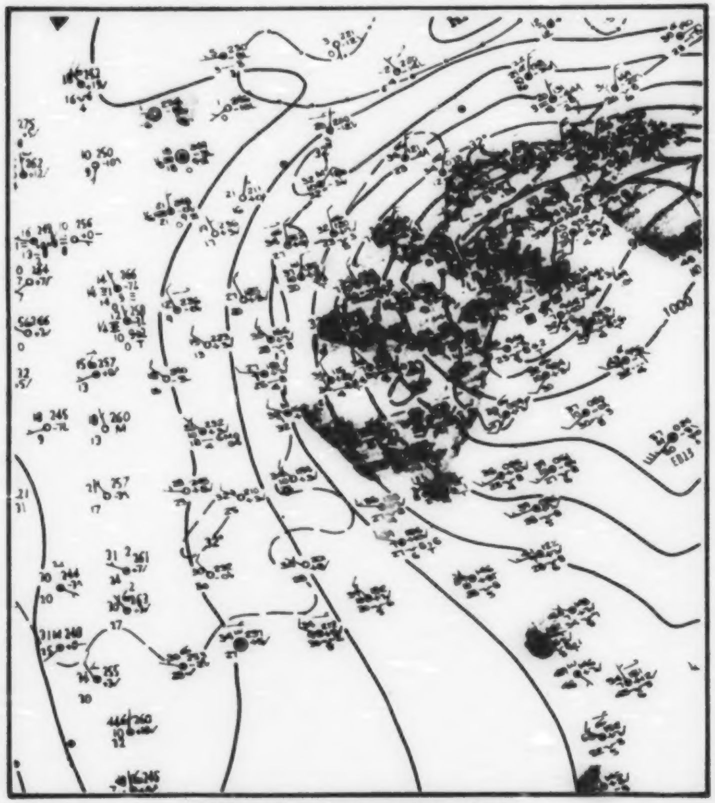
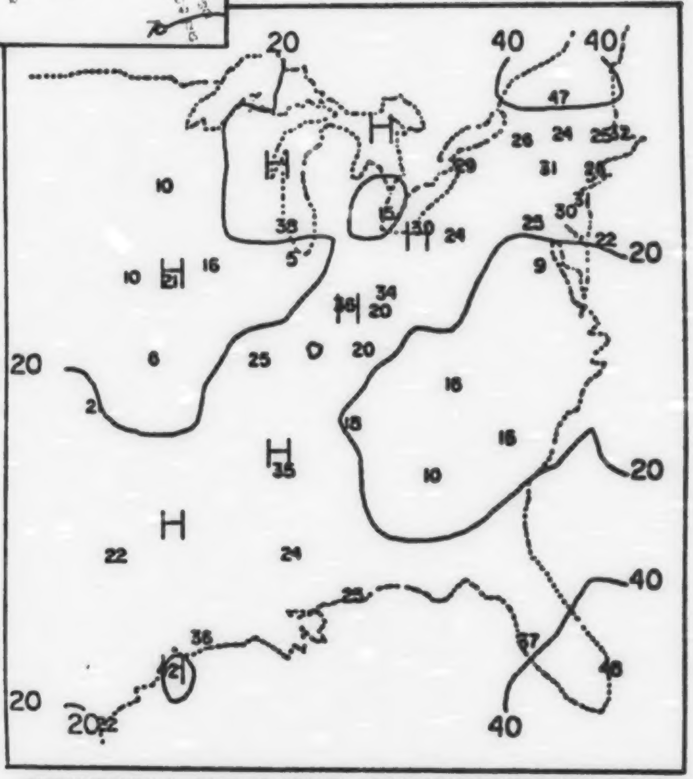
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, DECEMBER 1, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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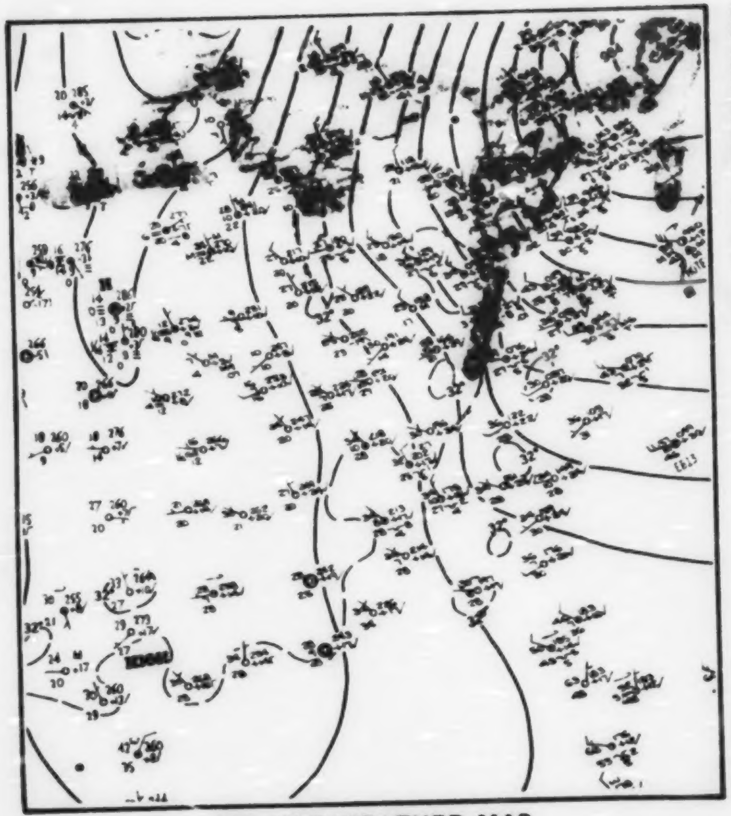
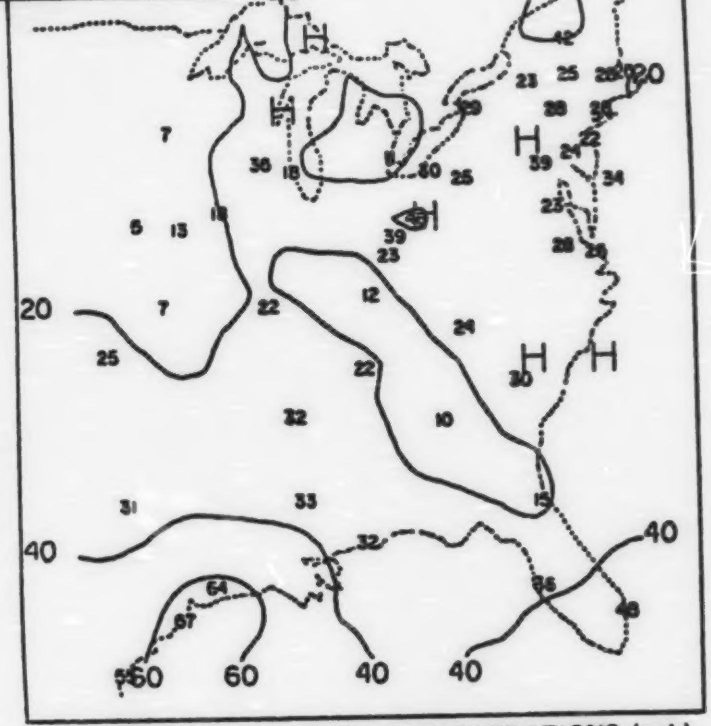
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, DECEMBER 2, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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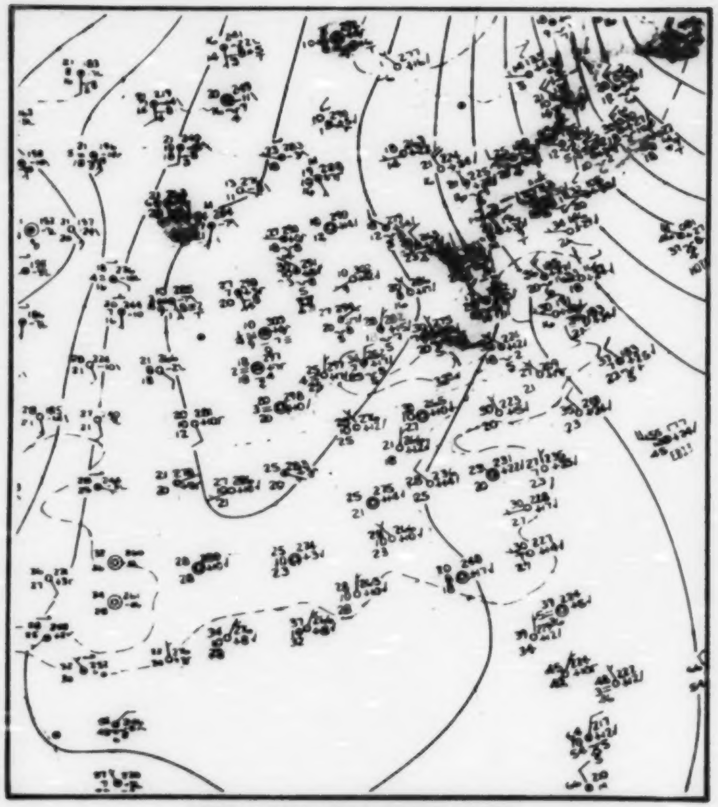
64
57
46

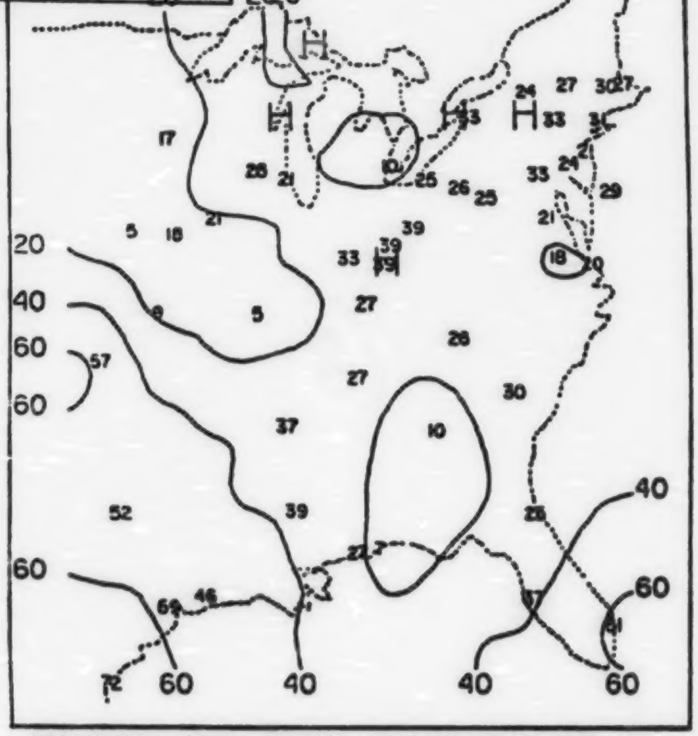
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, DECEMBER 3, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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72
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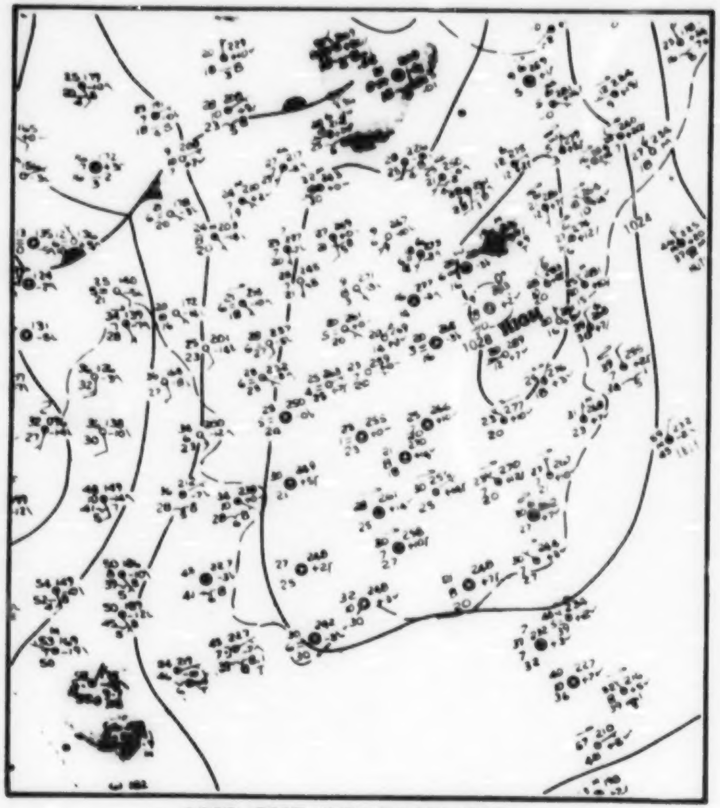
60

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, DECEMBER 4, 1974


HIGH
1028
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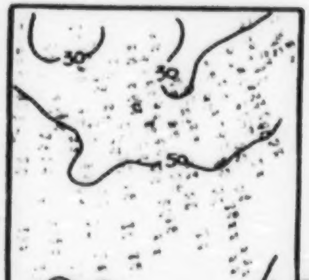
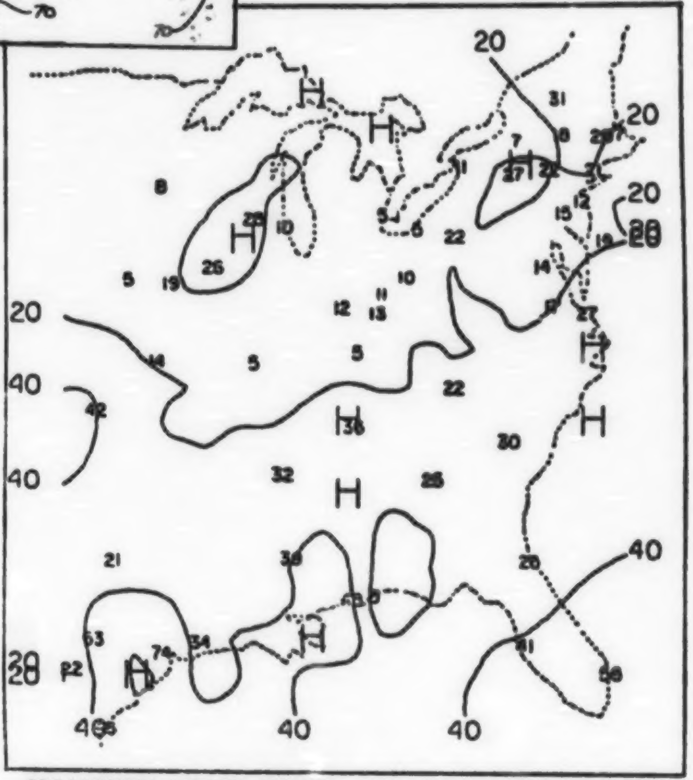
1200 GMT WEATHER MAP

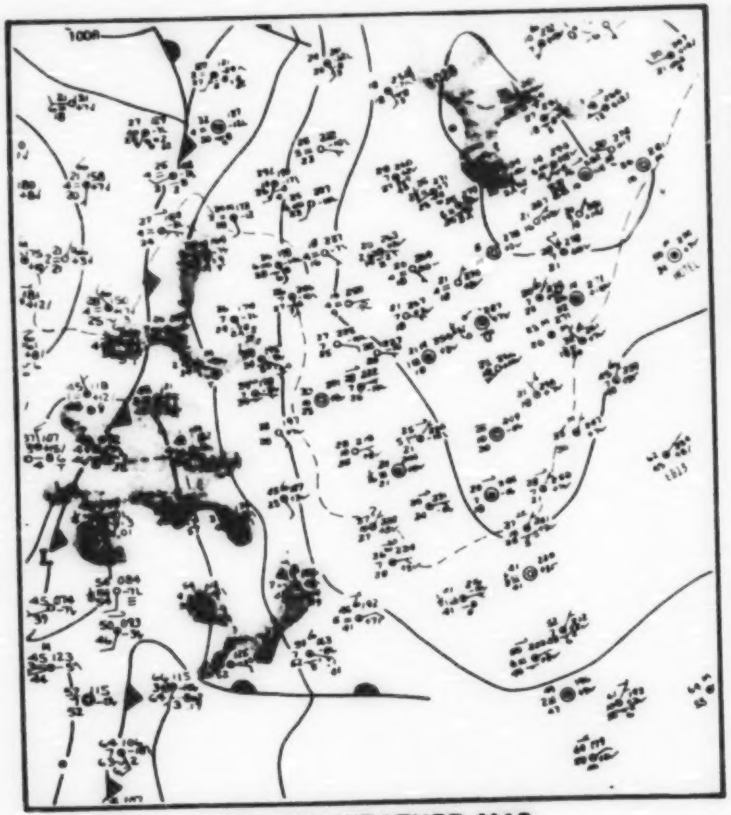


MAXIMUM-
MINIMUM
TEMPERATURE

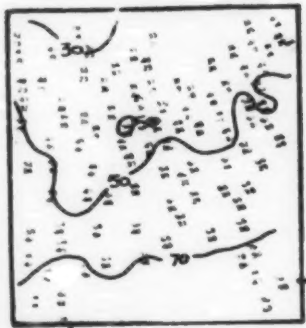


MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

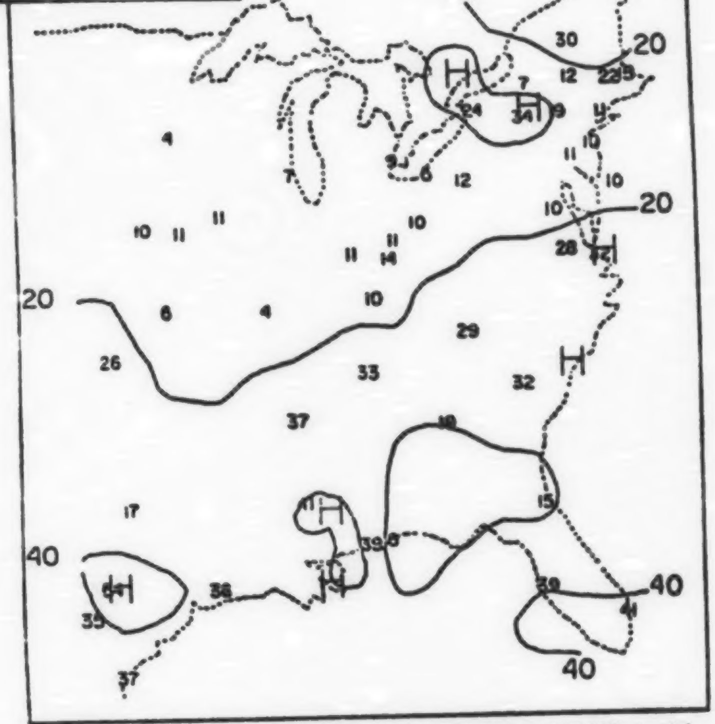
THURSDAY, DECEMBER 5, 1974



1200 GMT WEATHER MAP



MAXIMUM-MINIMUM TEMPERATURE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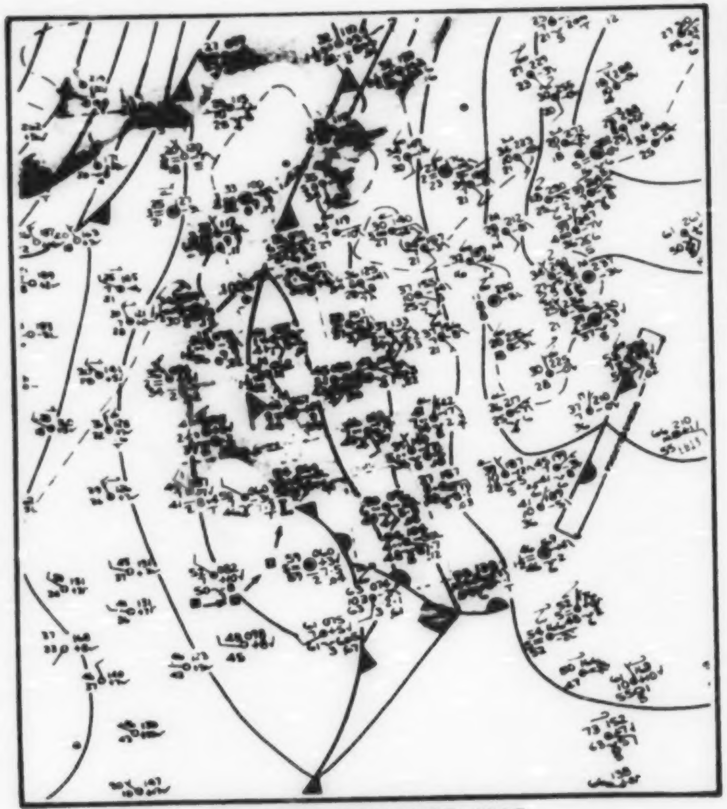
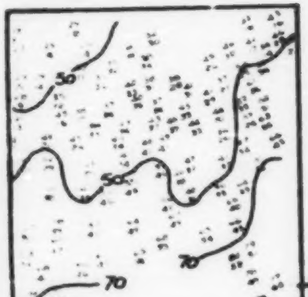
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

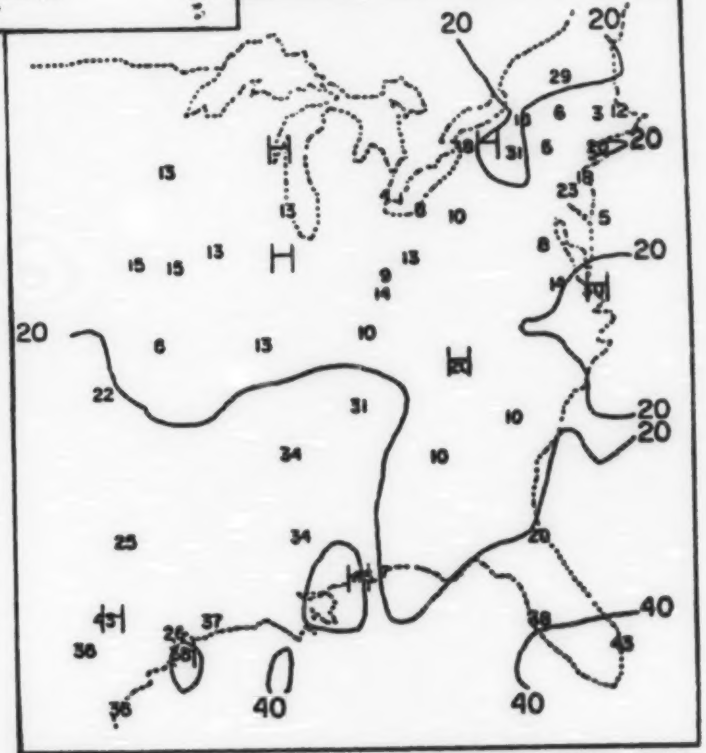
FRIDAY, DECEMBER 6, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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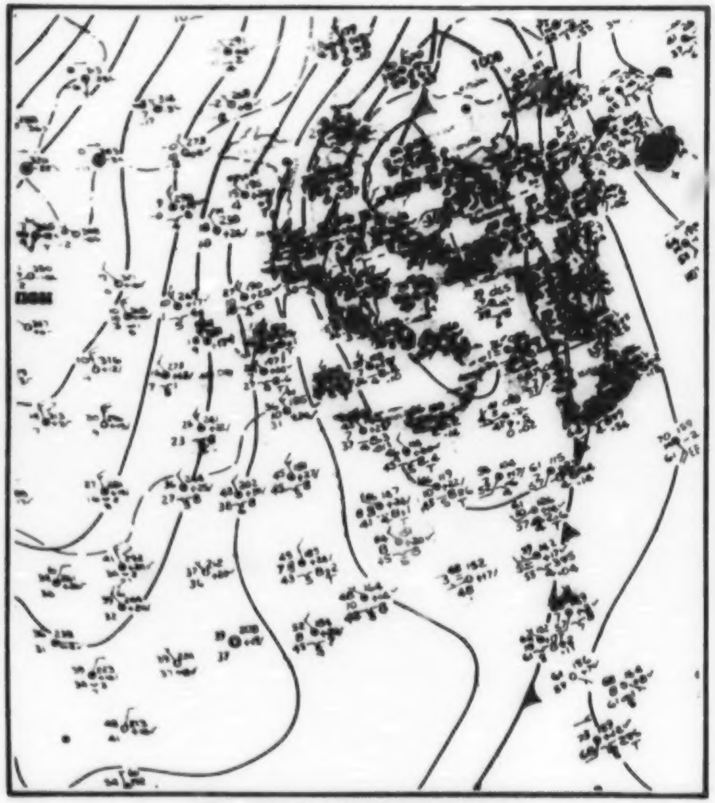
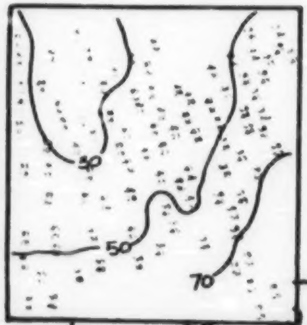
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

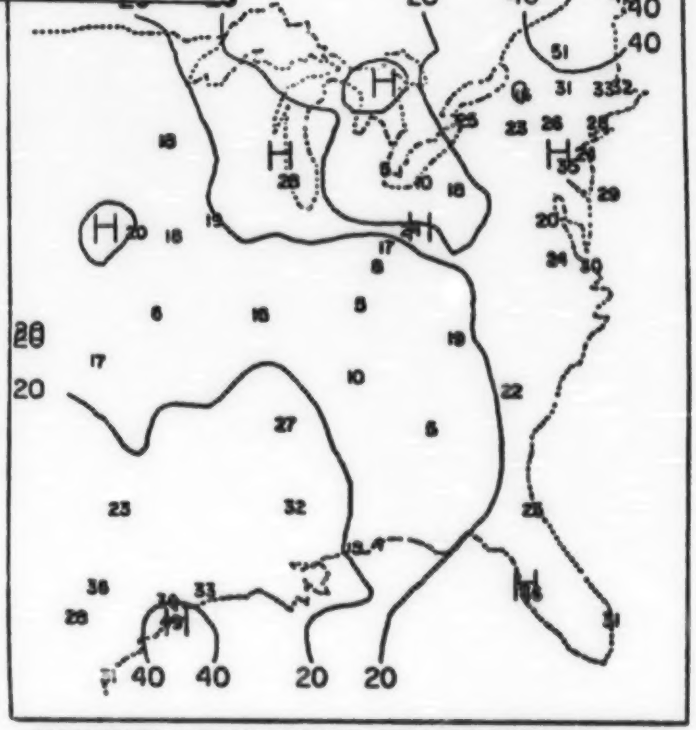
SATURDAY, DECEMBER 7, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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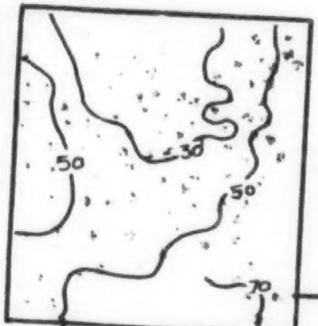
SUNDAY, DECEMBER 8, 1974

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

1200 GMT WEATHER MAP



MAXIMUM-
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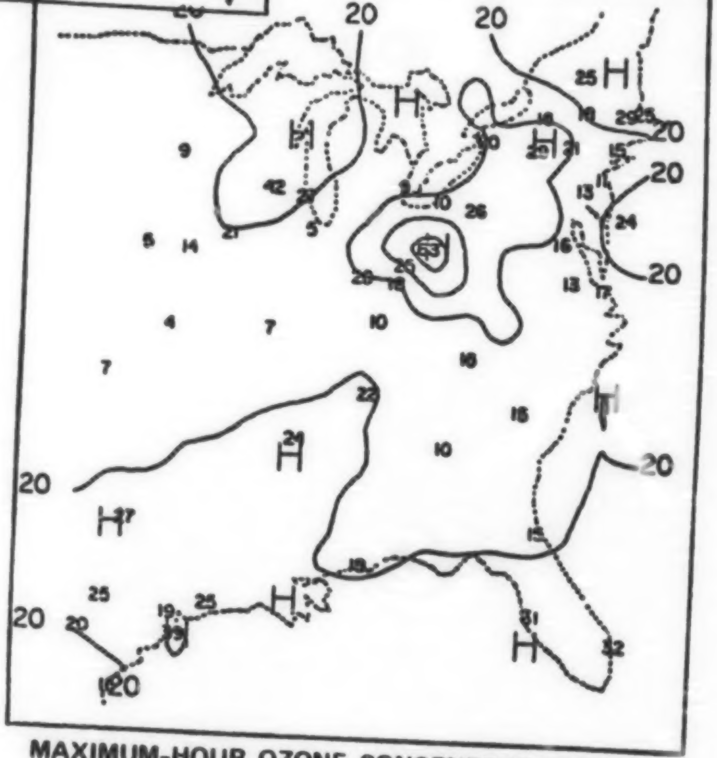
TEMPERATURE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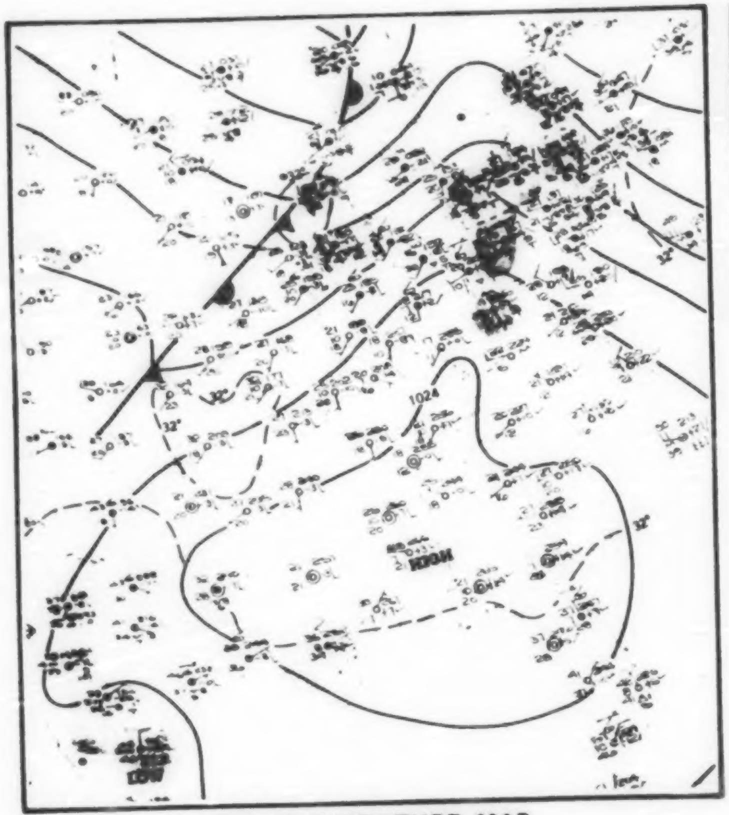
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, DECEMBER 9, 1974


1024
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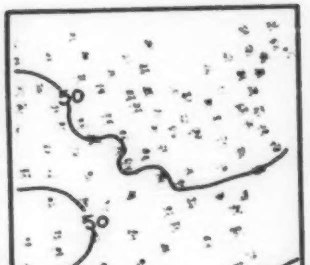
1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
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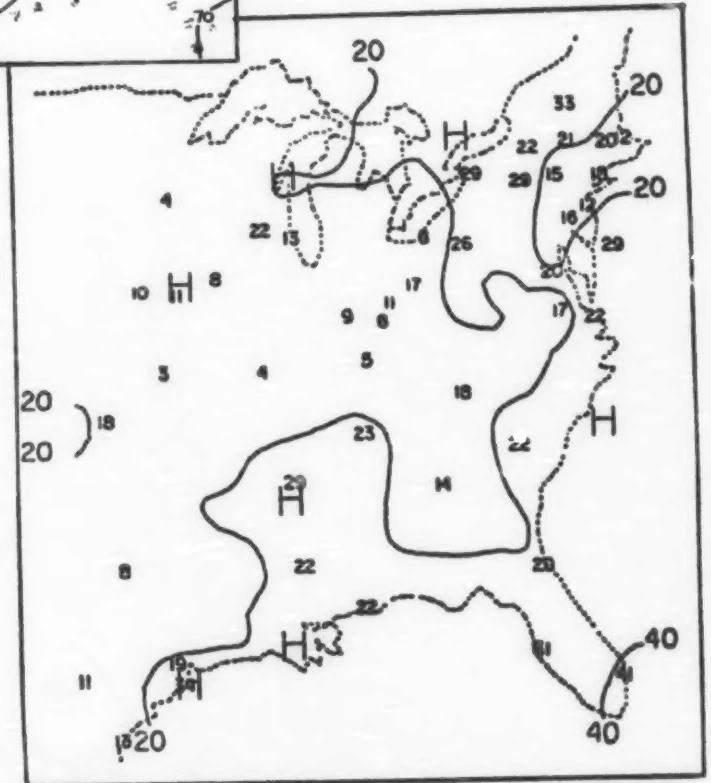
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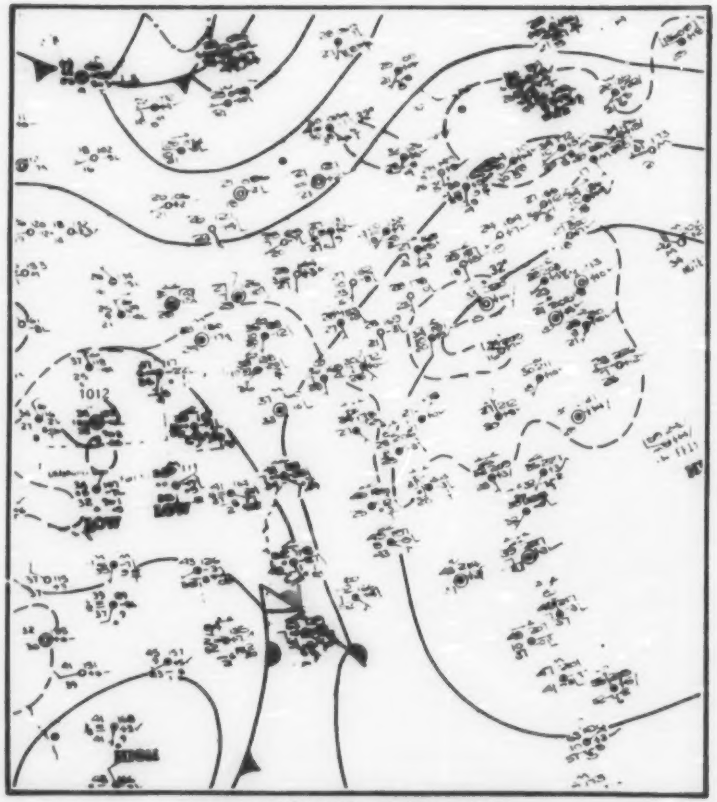
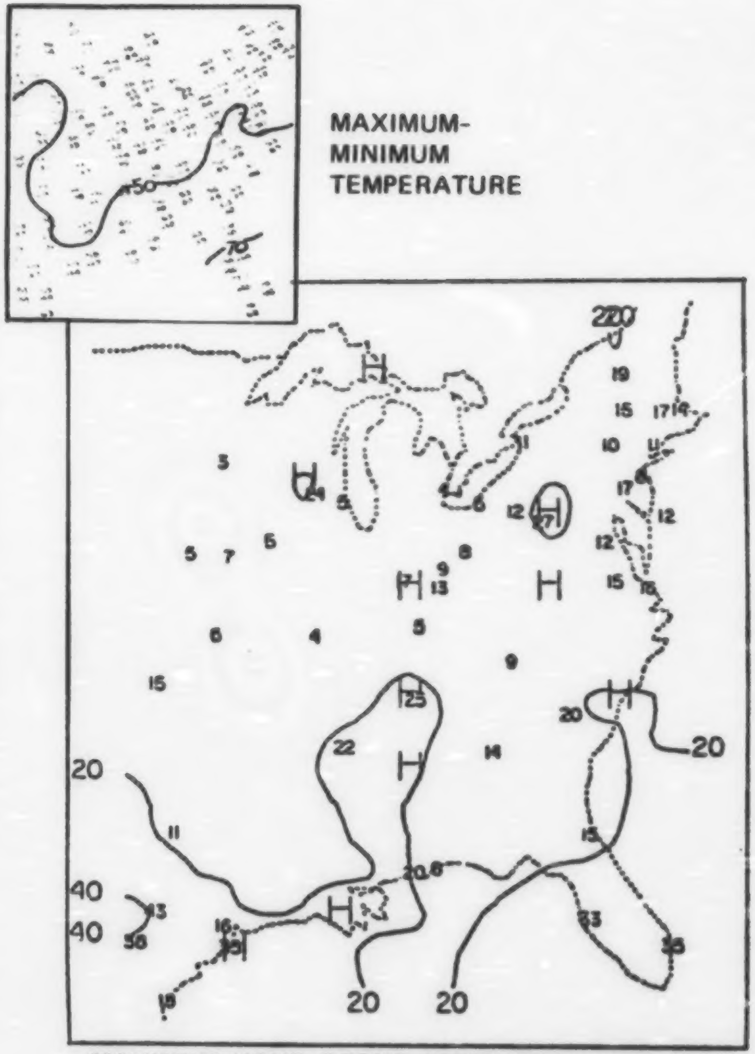
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, DECEMBER 10, 1974



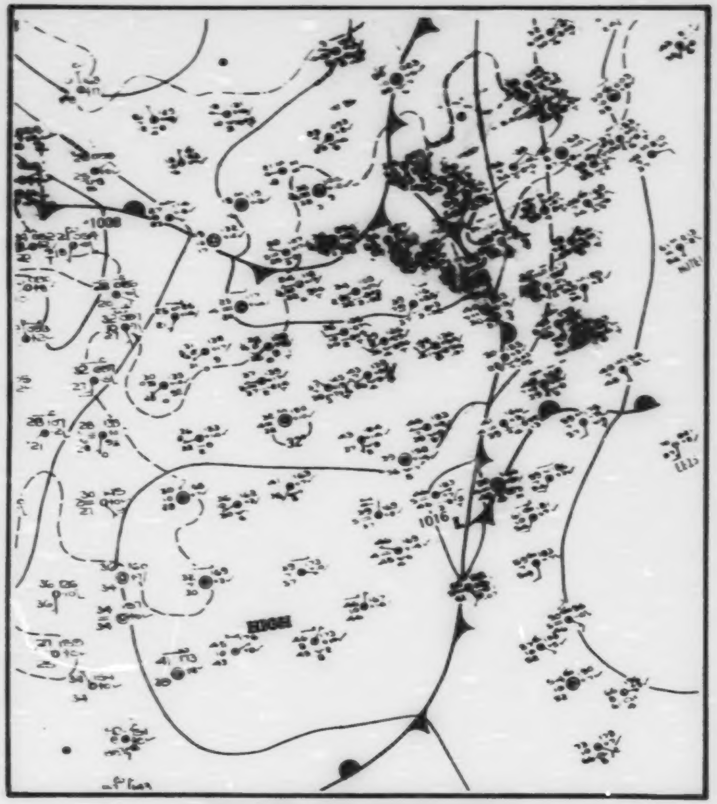
1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE

MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, DECEMBER 11, 1974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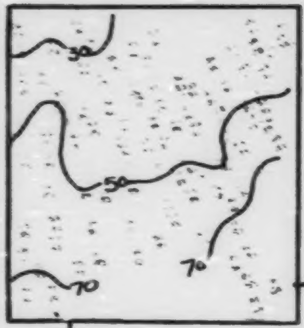
1200 GMT WEATHER MAP



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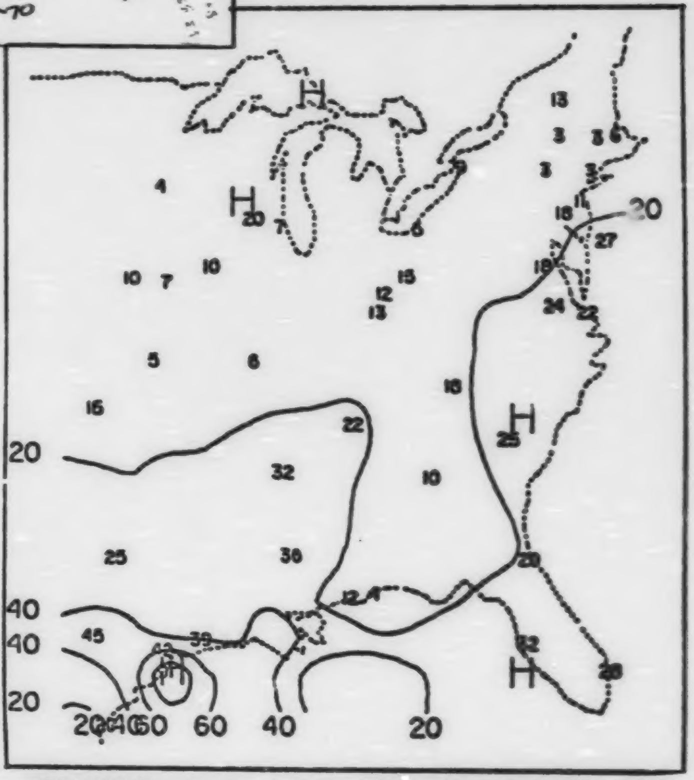
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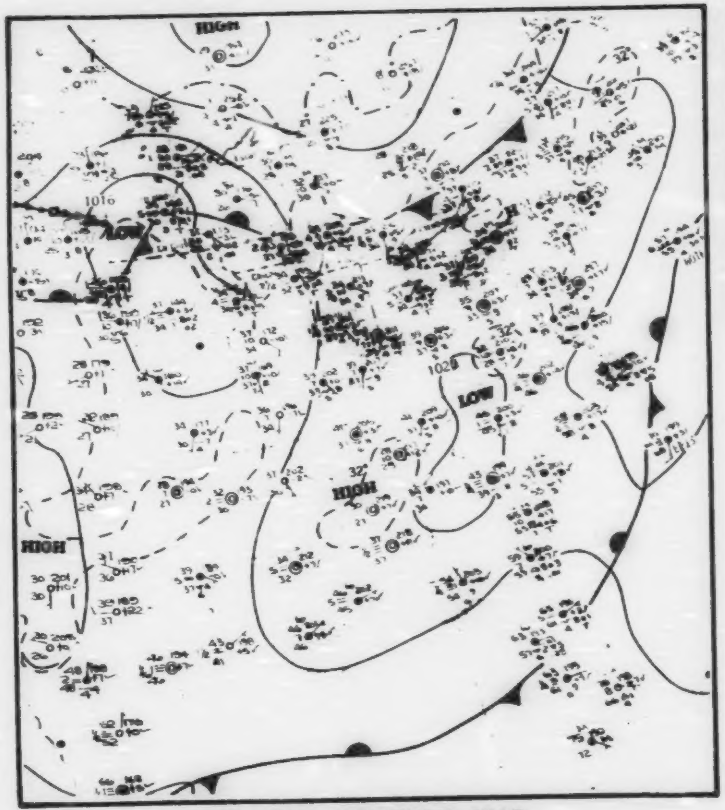
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, DECEMBER 12, 1974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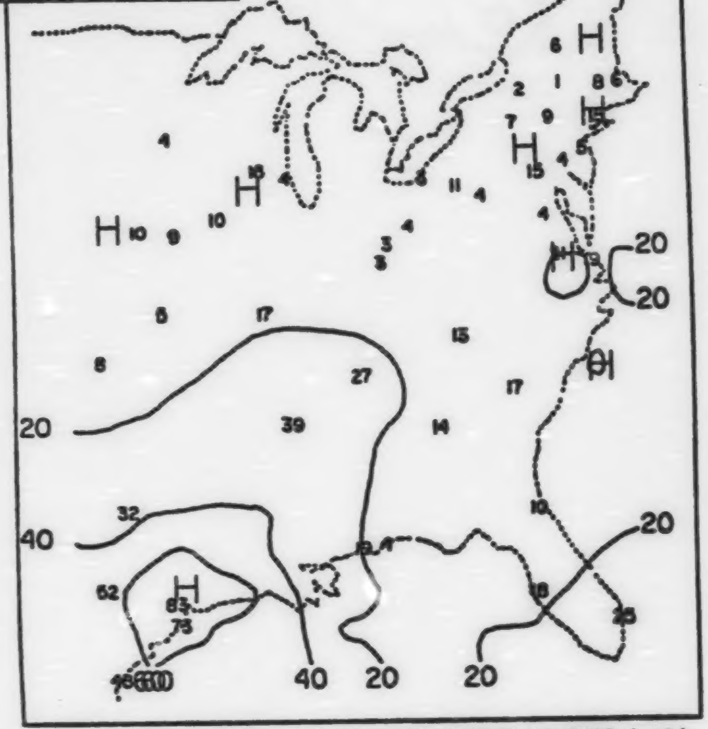
1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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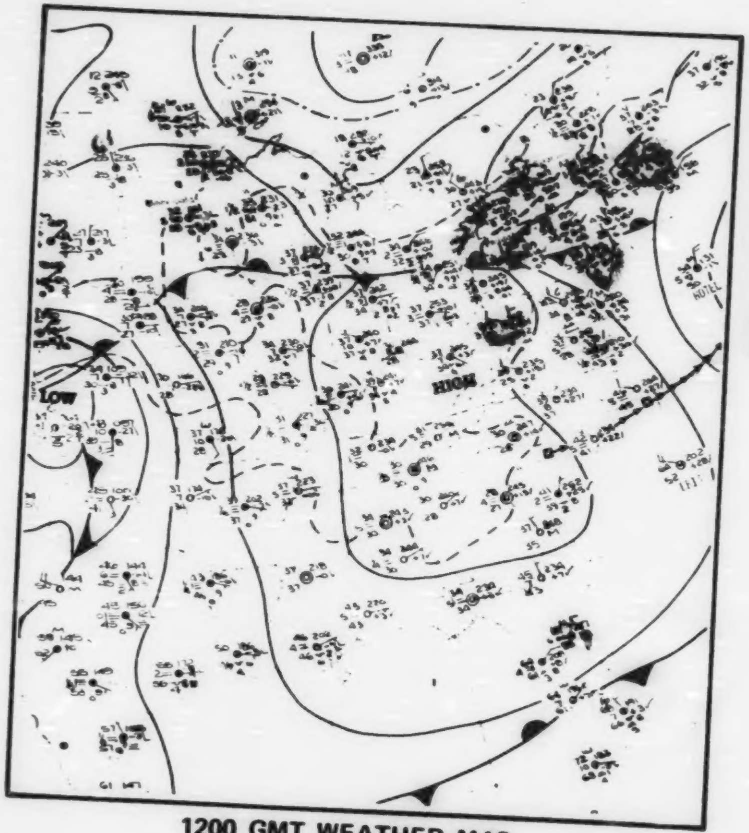
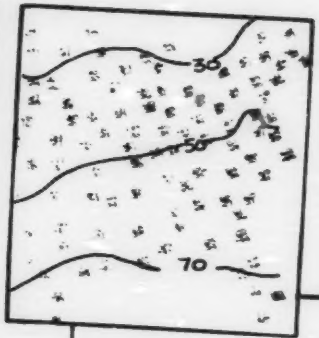
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, DECEMBER 13, 1974



1200 GMT WEATHER MAP



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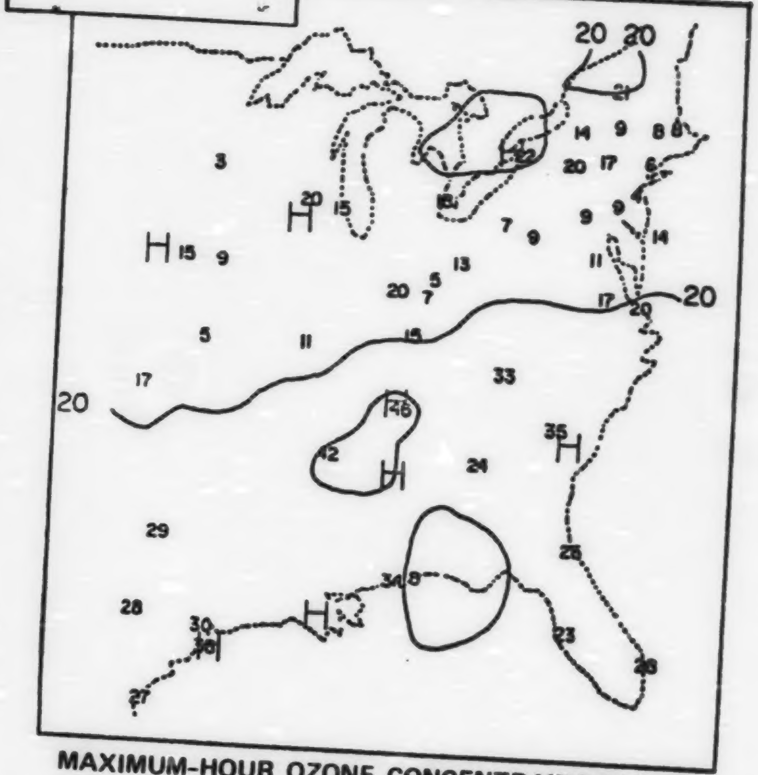
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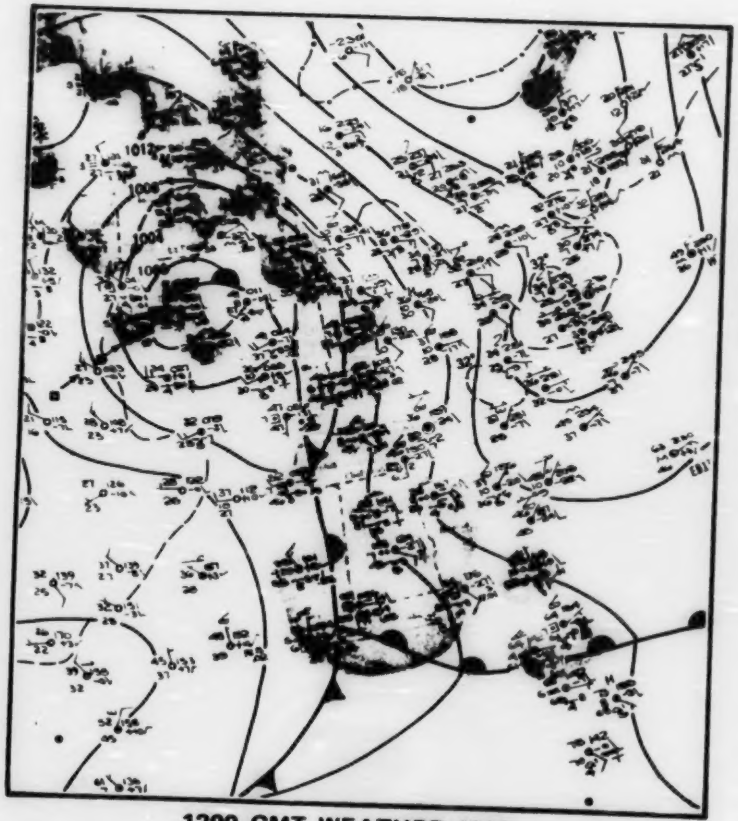
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, DECEMBER 14, 1974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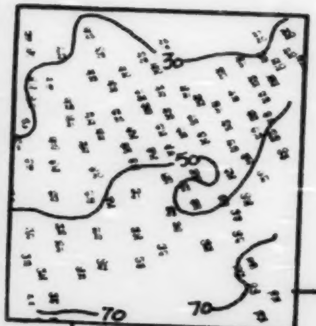
1200 GMT WEATHER MAP



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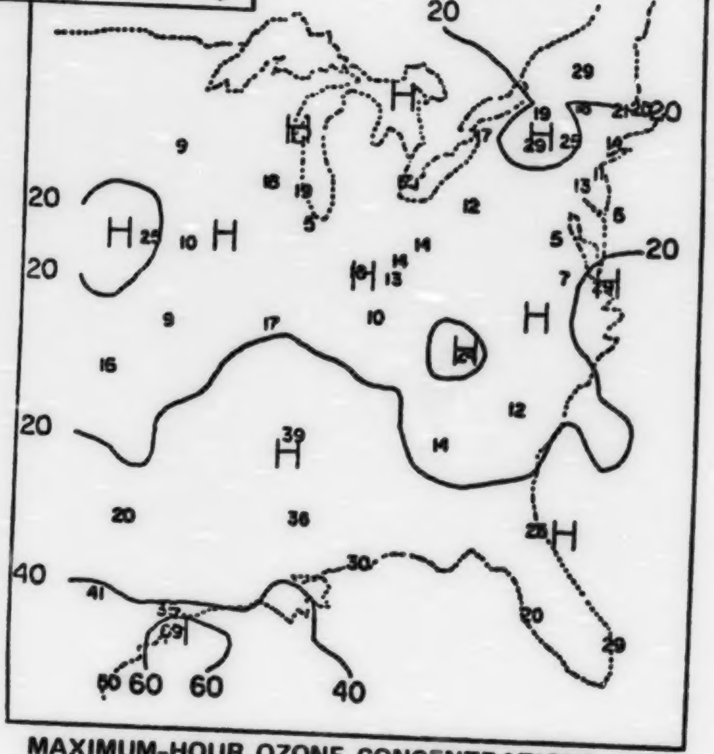
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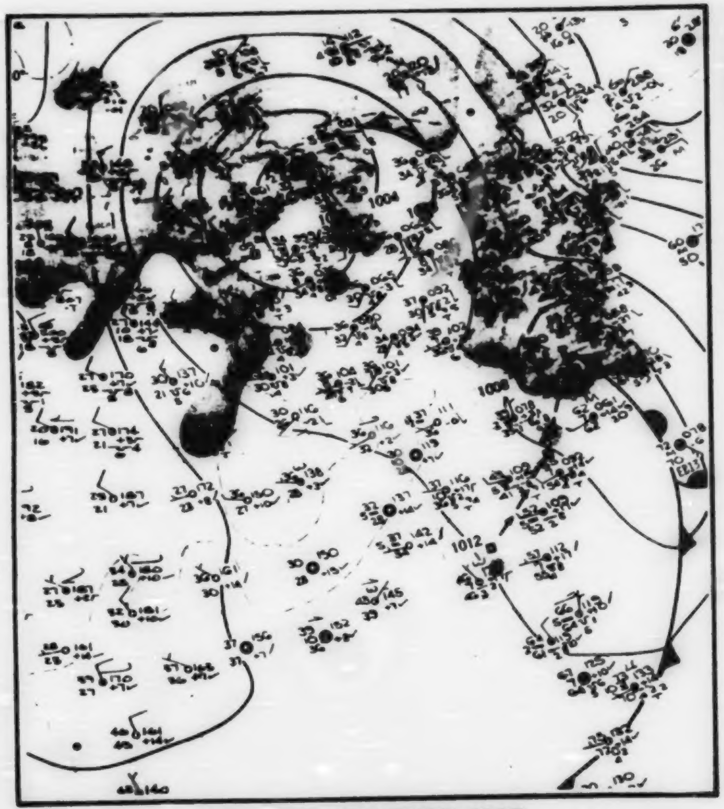
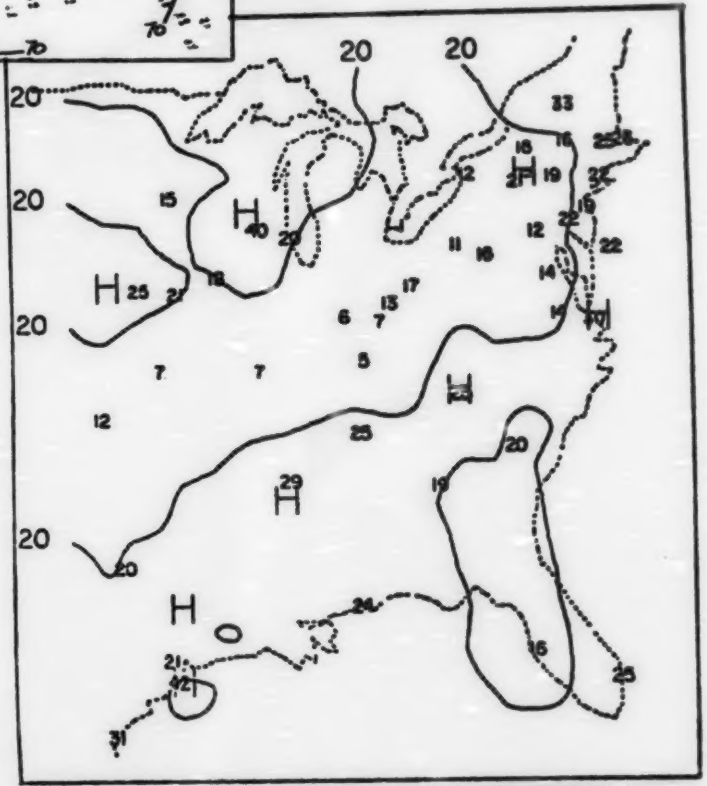
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, DECEMBER 15, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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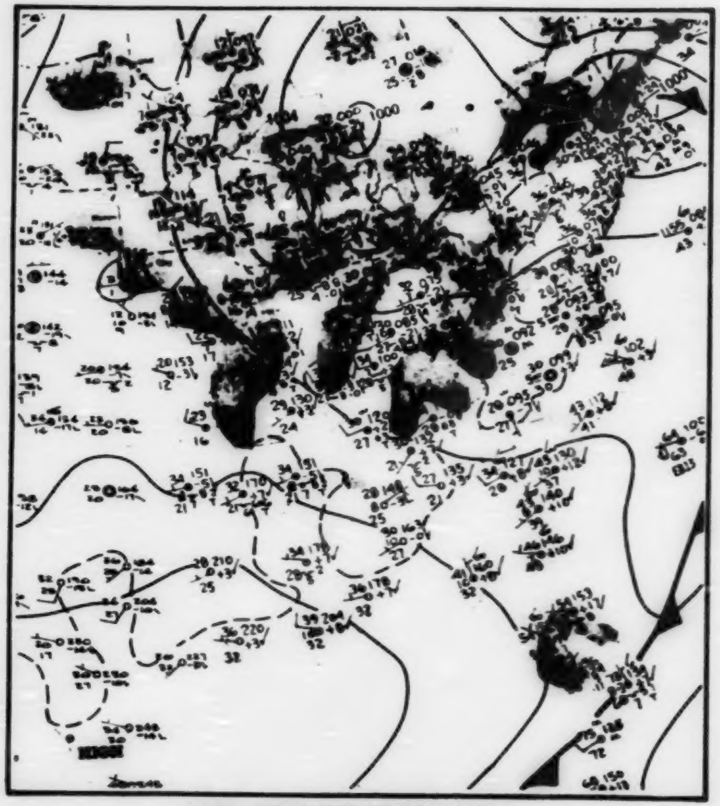
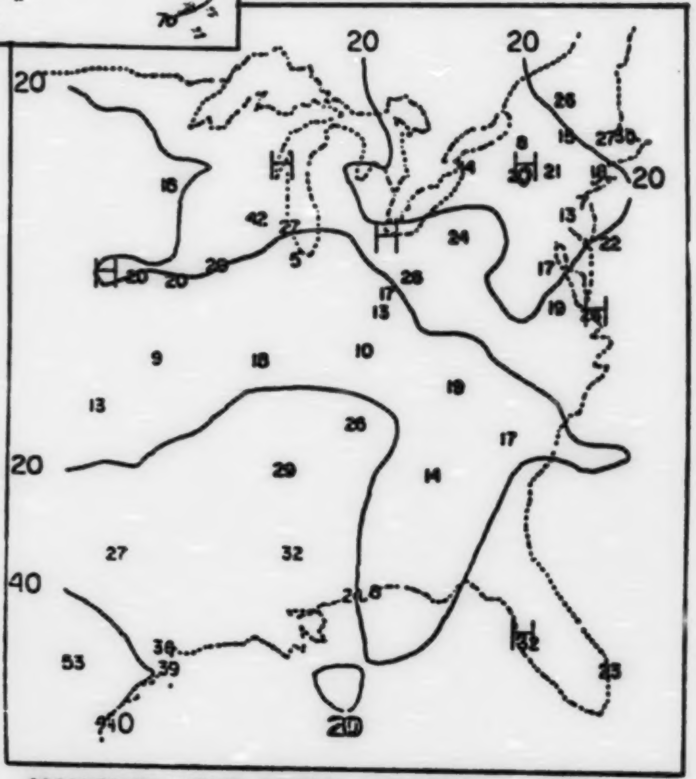
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

MONDAY, DECEMBER 16, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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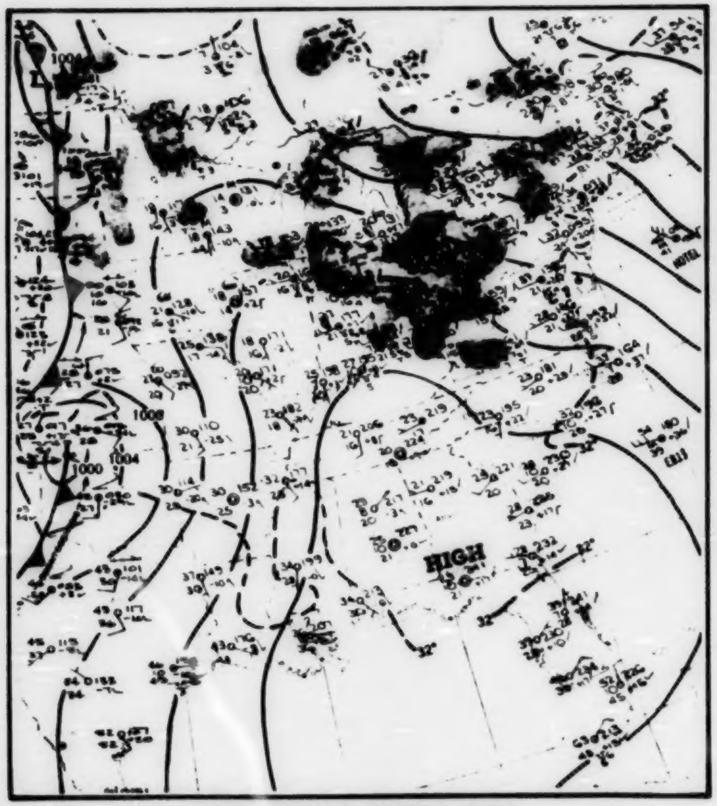
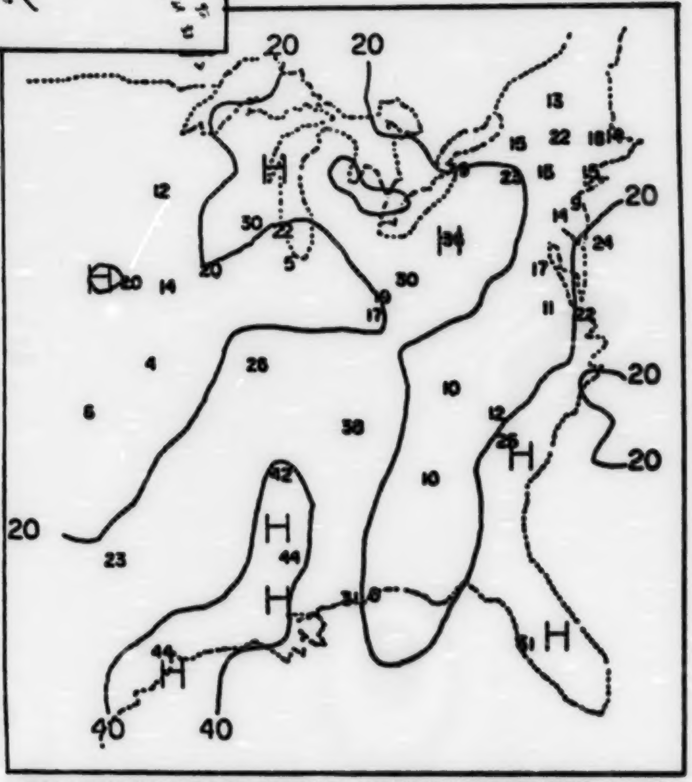
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, DECEMBER 17, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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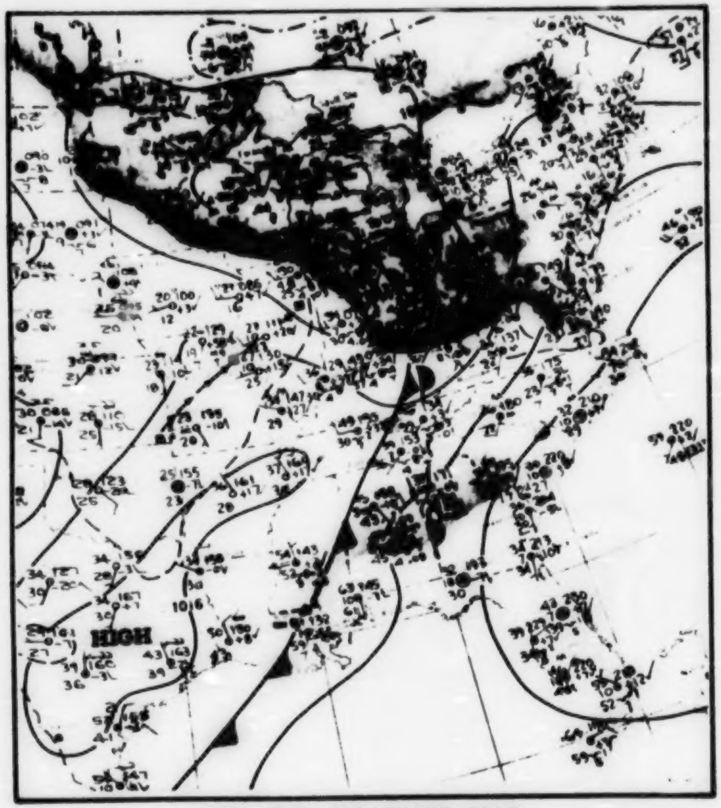
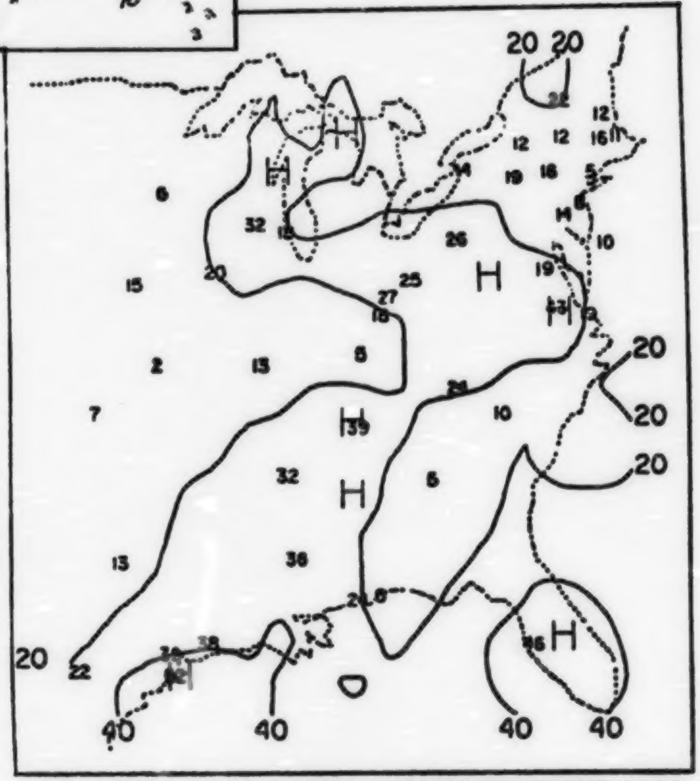
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, DECEMBER 18, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE



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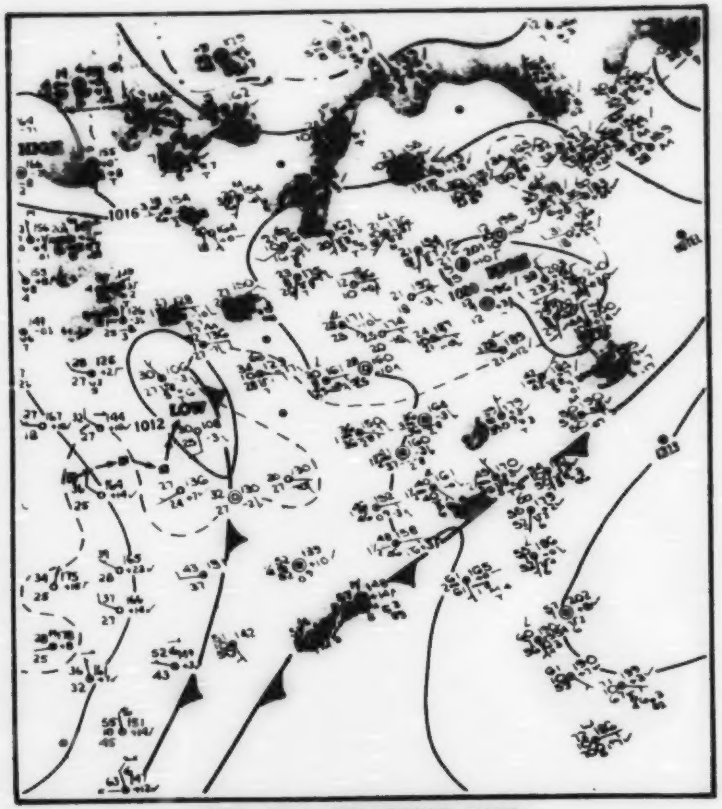
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

THURSDAY, DECEMBER 19, 1974


HIGH
1016
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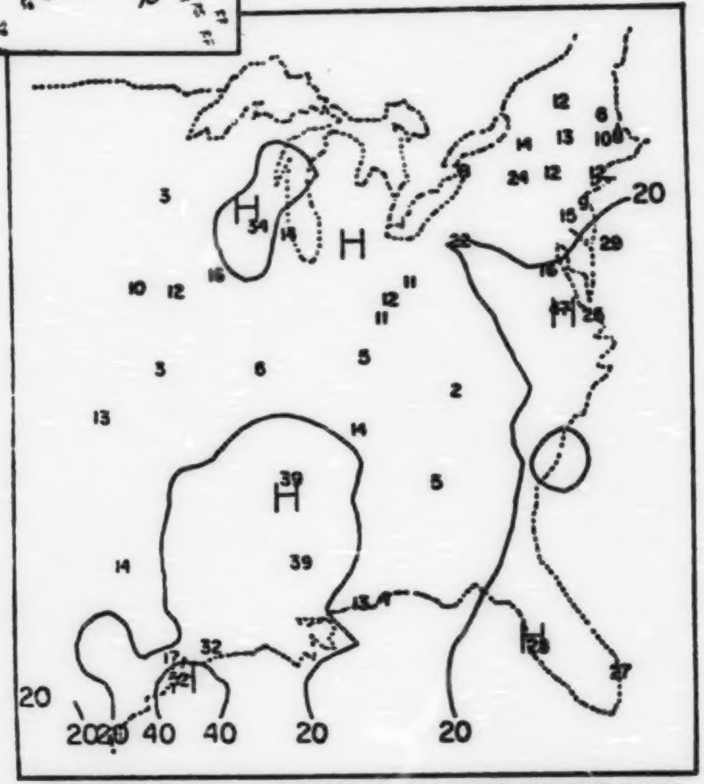
1200 GMT WEATHER MAP

MAXIMUM-MINIMUM TEMPERATURE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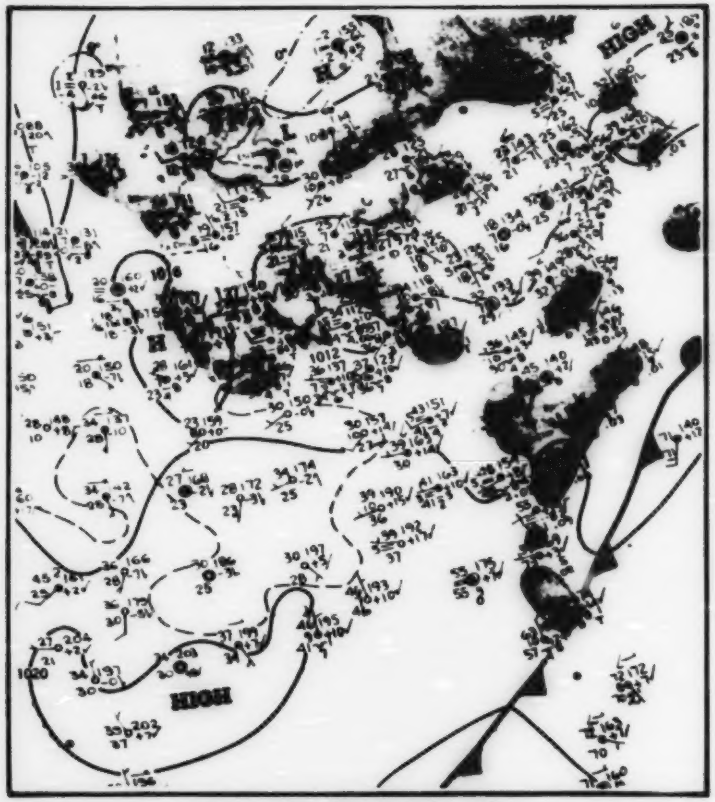
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

FRIDAY, DECEMBER 20, 1974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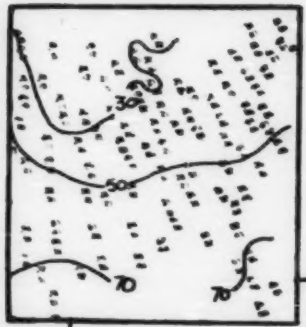
1200 GMT WEATHER MAP



MAXIMUM-
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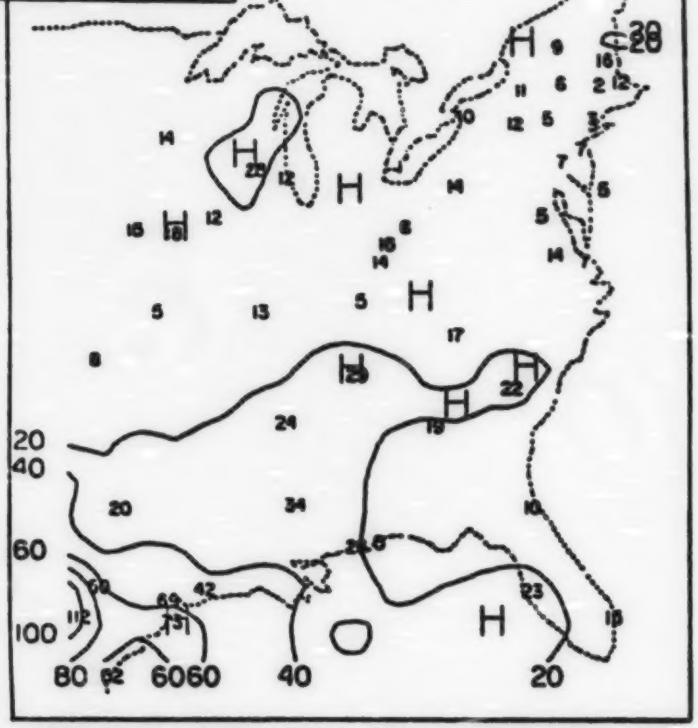
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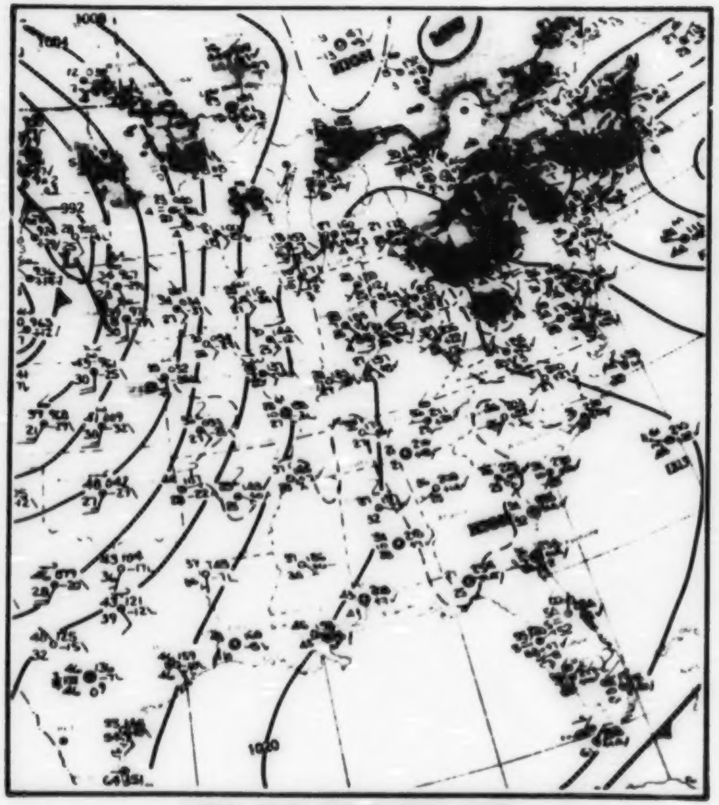
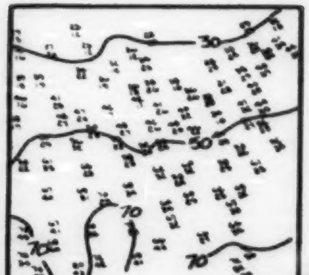
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, DECEMBER 21, 1974



1200 GMT WEATHER MAP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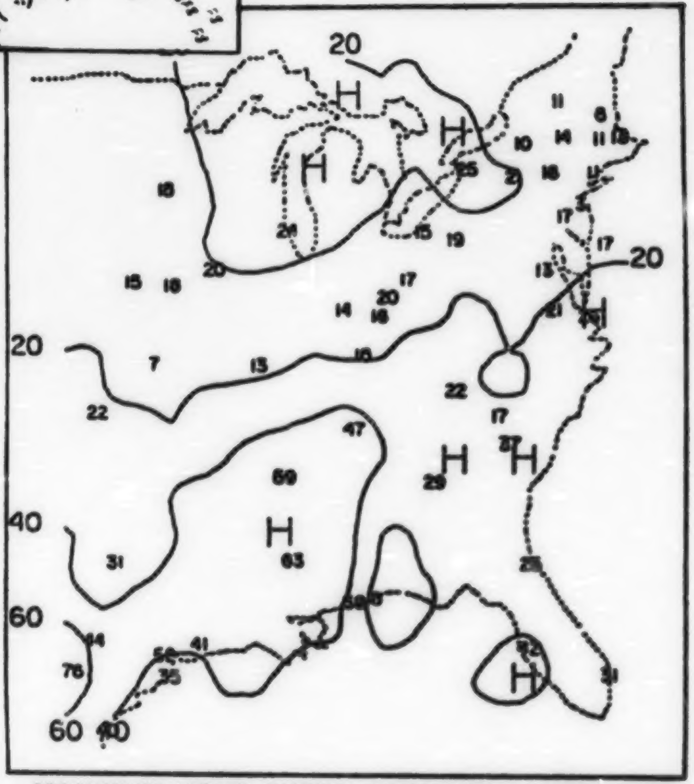
MAXIMUM-
MINIMUM
TEMPERATURE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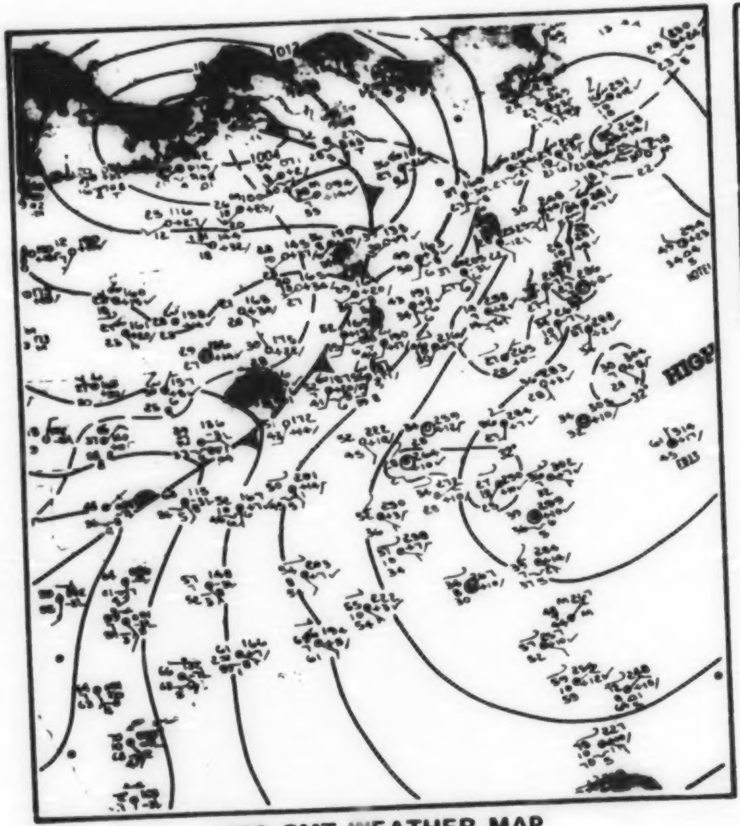
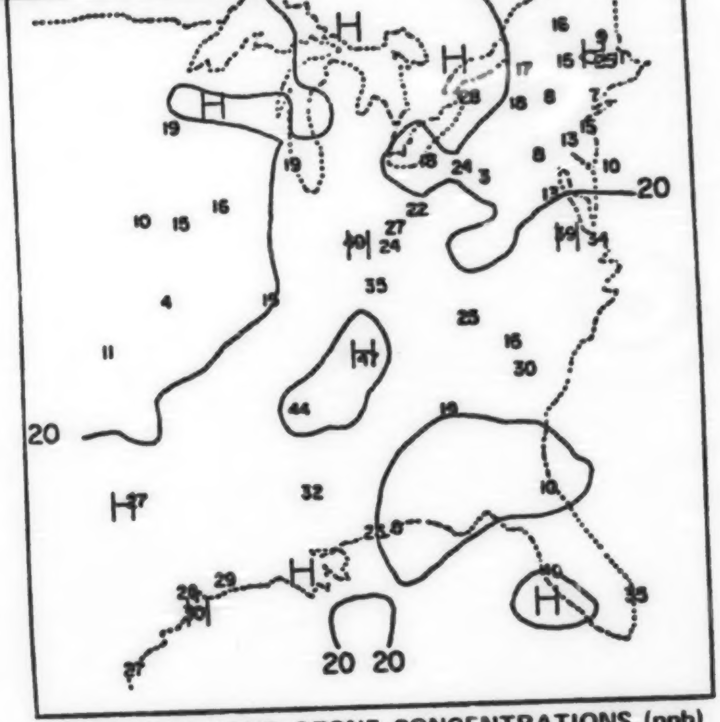
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SUNDAY, DECEMBER 22, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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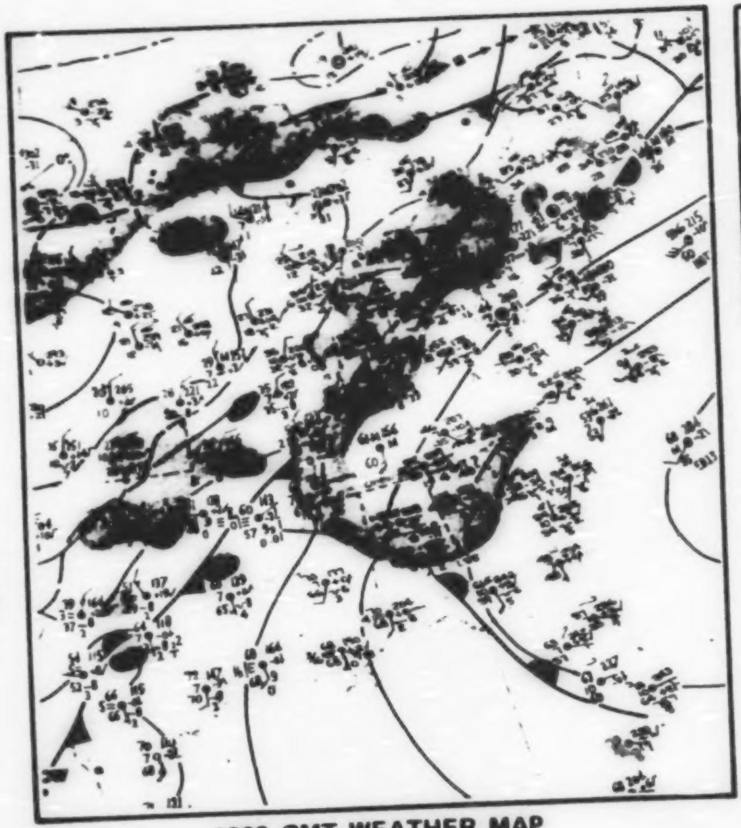
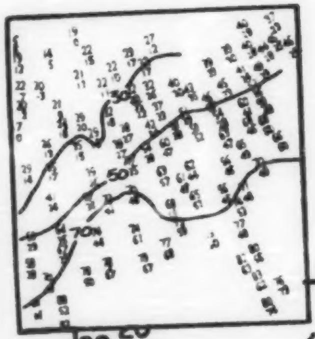
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

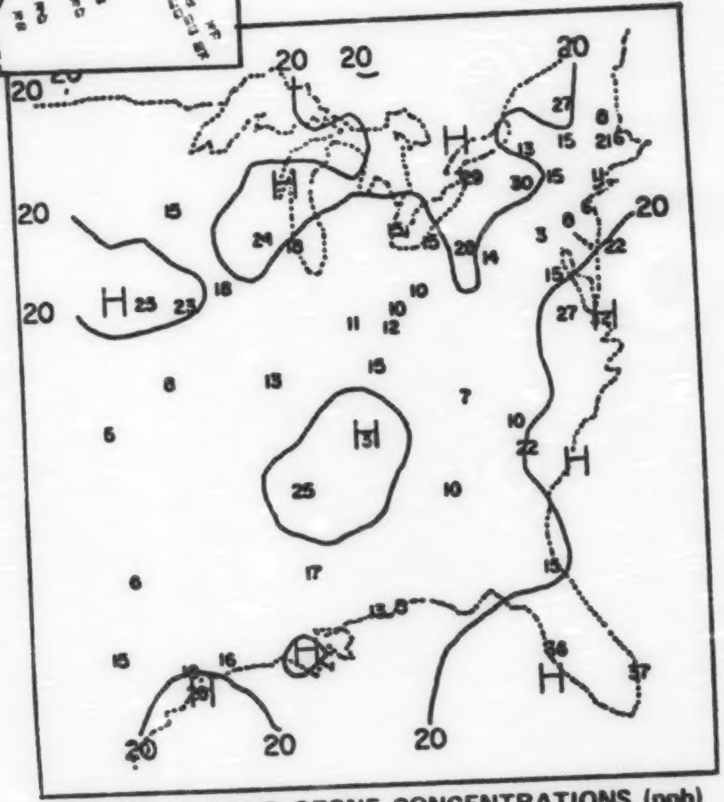
MONDAY, DECEMBER 23, 1974



1200 GMT WEATHER MAP



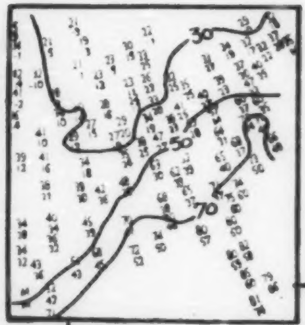
MAXIMUM-
MINIMUM
TEMPERATURE



MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, DECEMBER 24, 1974

1200 GMT WEATHER MAP



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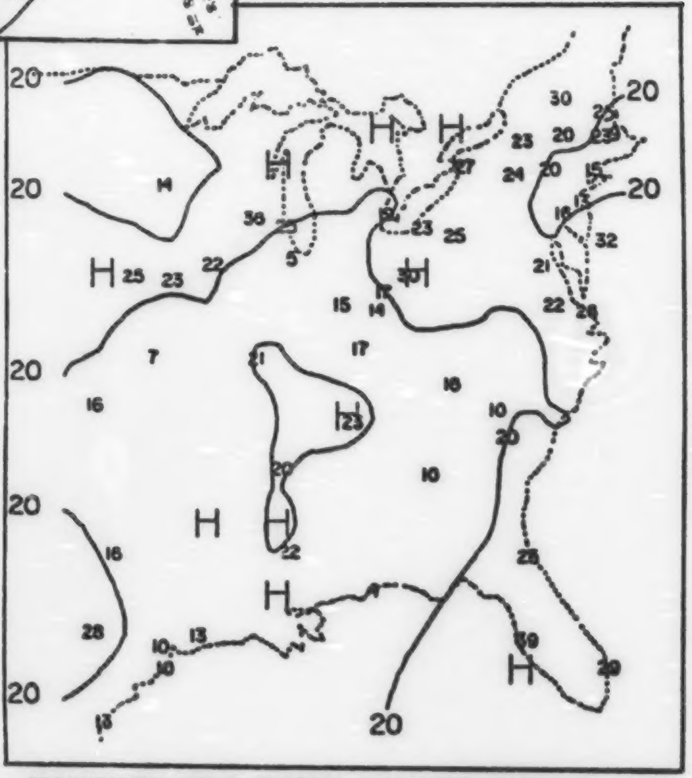
TEMPERATURE



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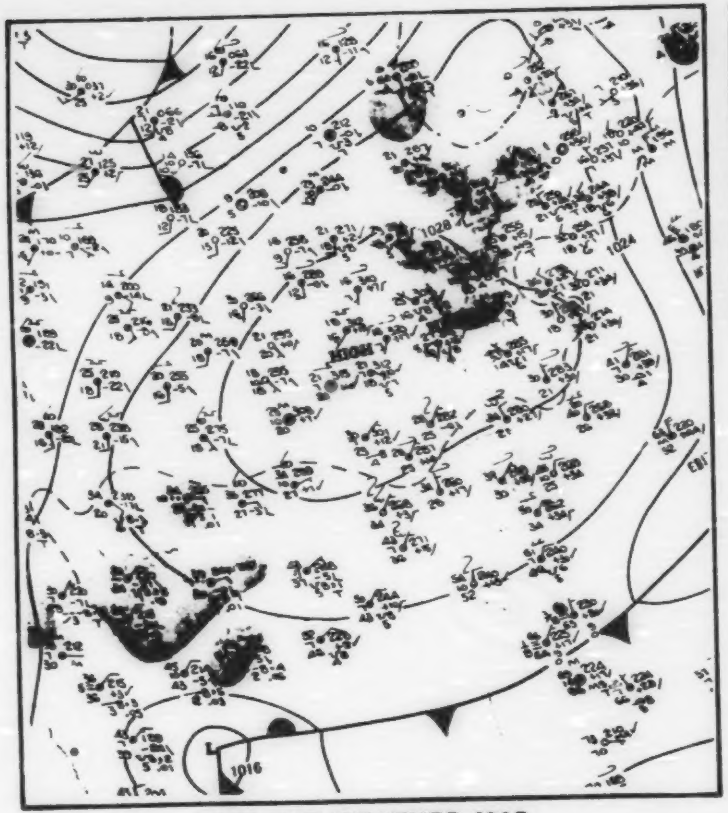
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

WEDNESDAY, DECEMBER 25, 1974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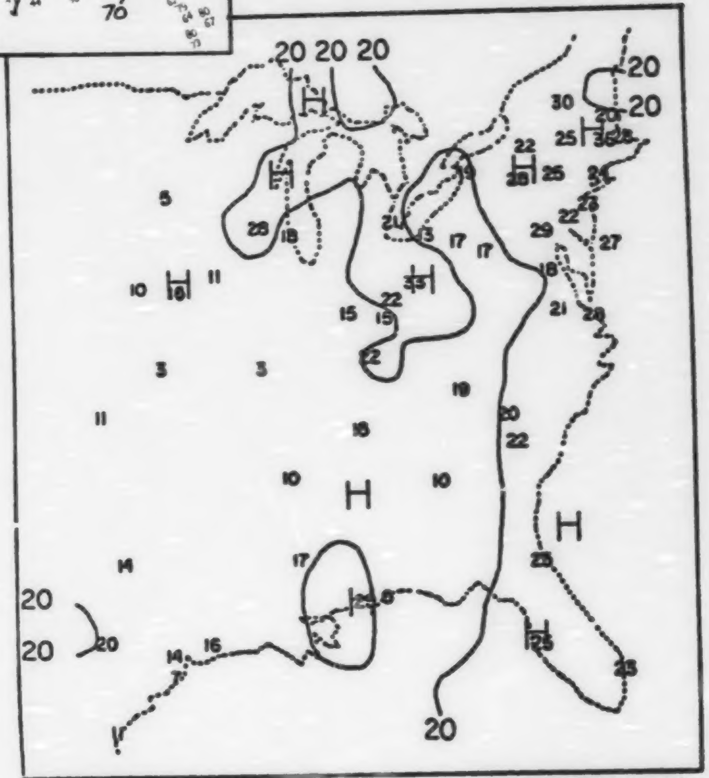
1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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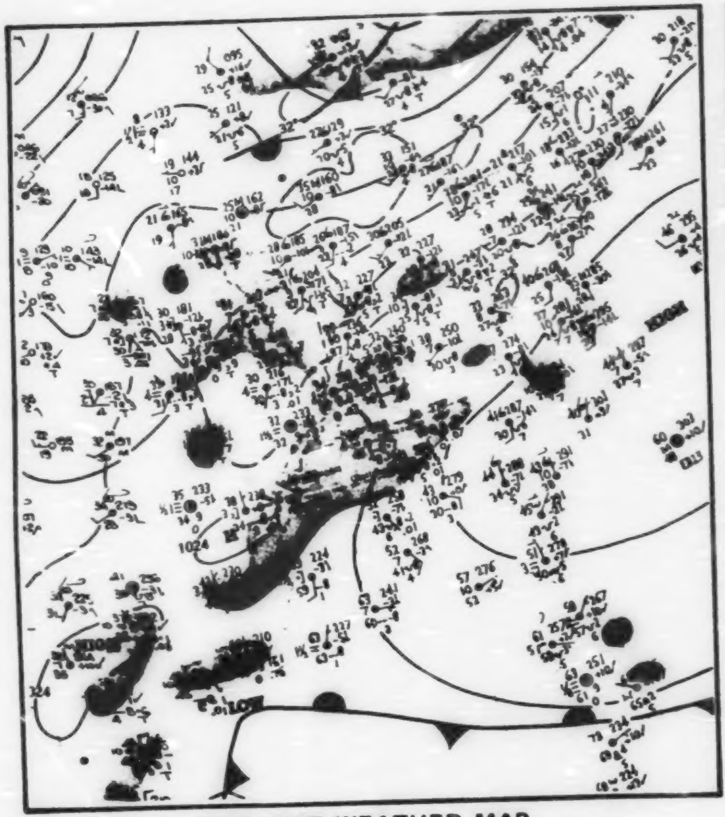
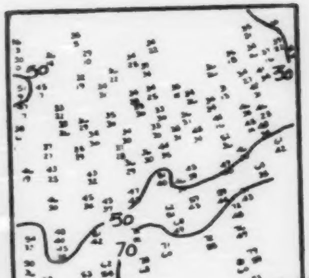
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

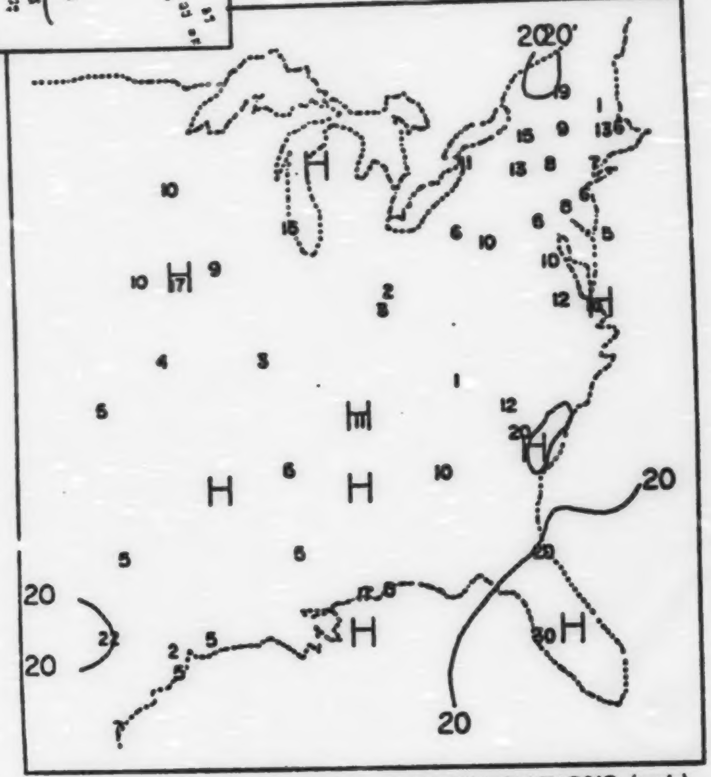
THURSDAY, DECEMBER 26, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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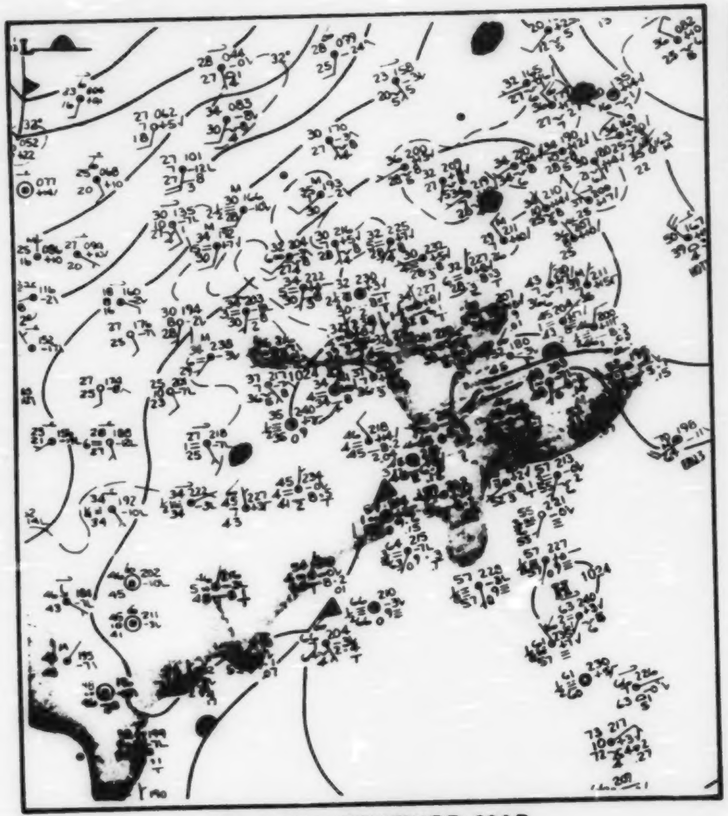
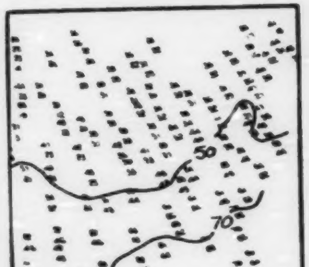
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

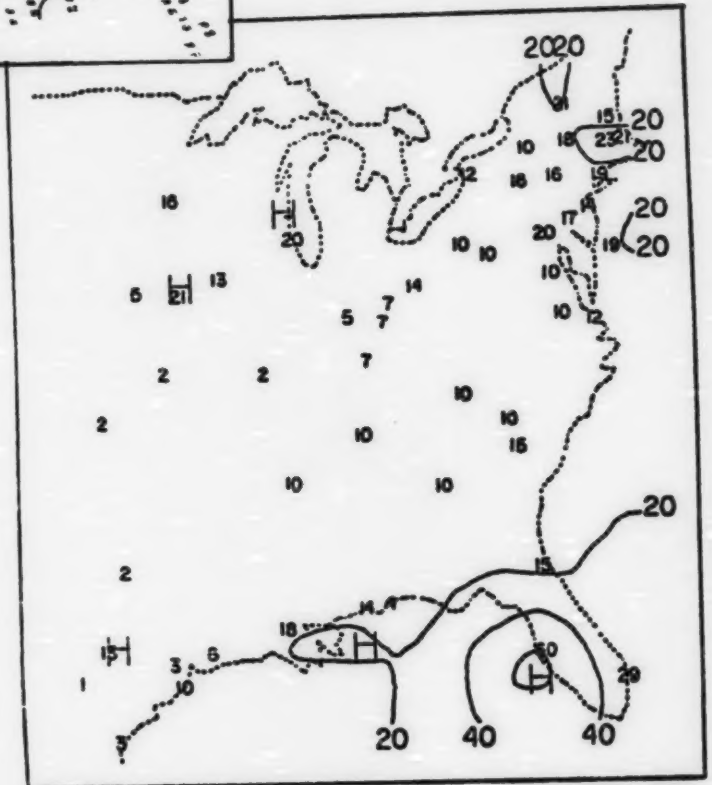
FRIDAY, DECEMBER 27, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE



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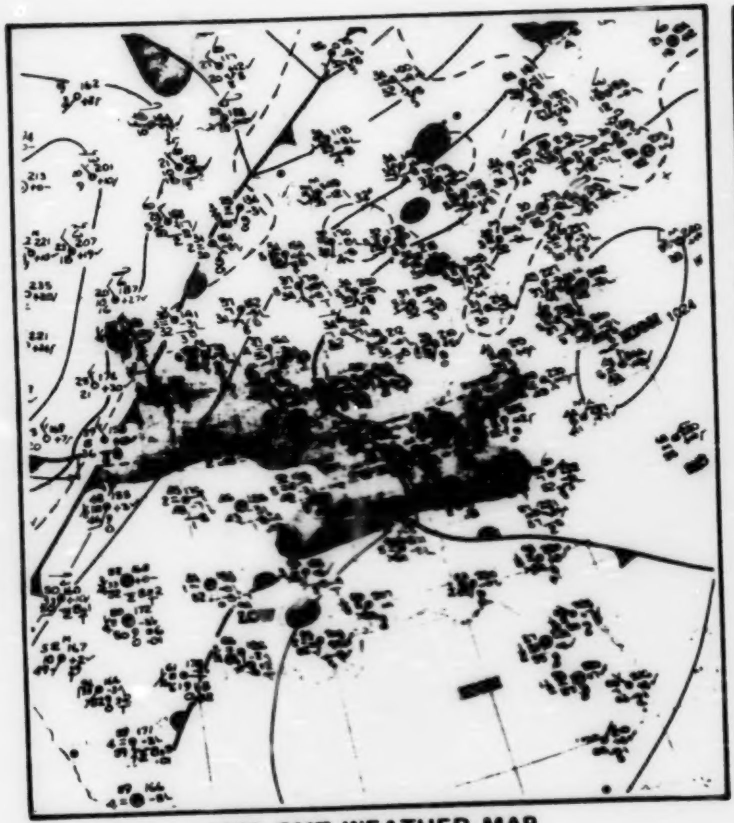
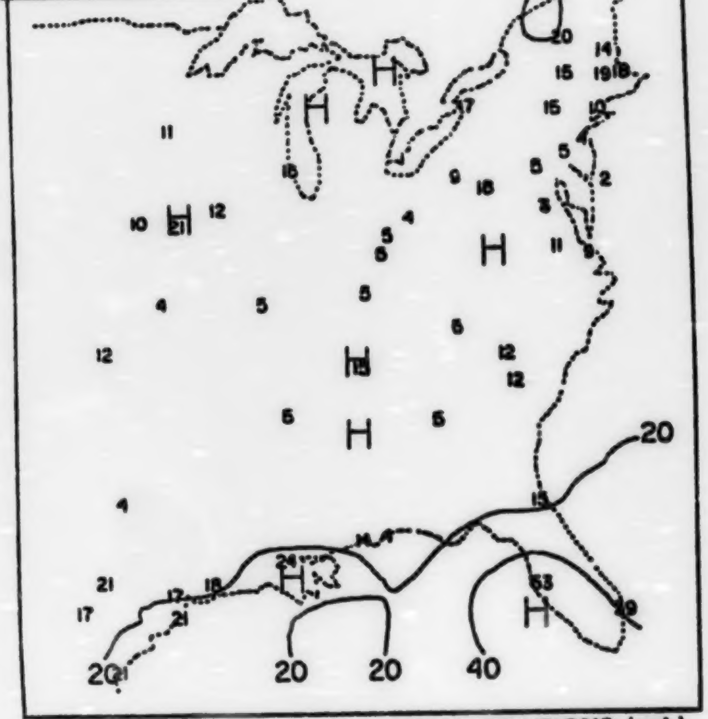
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

SATURDAY, DECEMBER 28, 1974



1200 GMT WEATHER MAP

MAXIMUM-
MINIMUM
TEMPERATURE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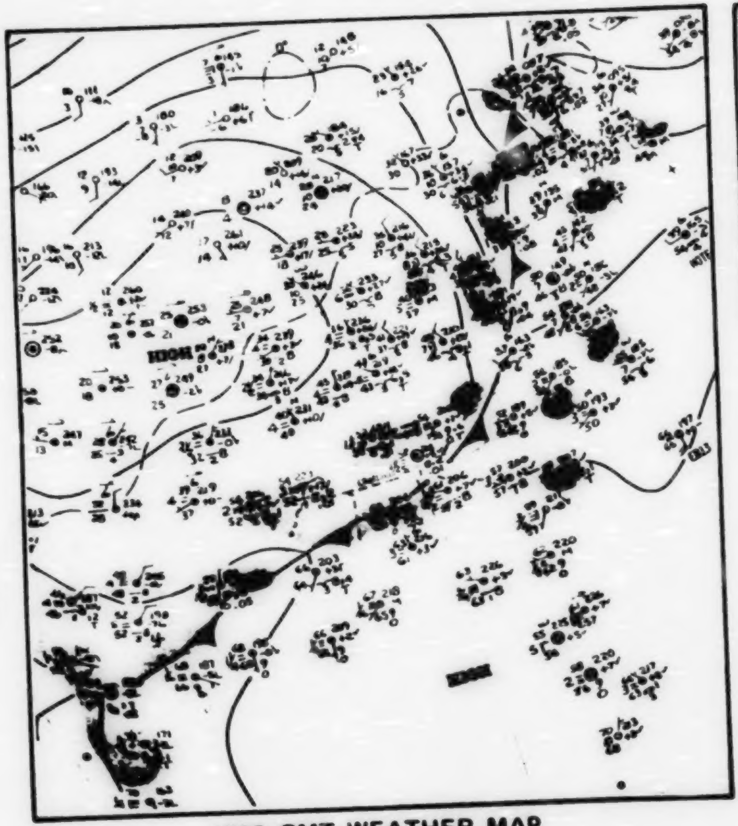
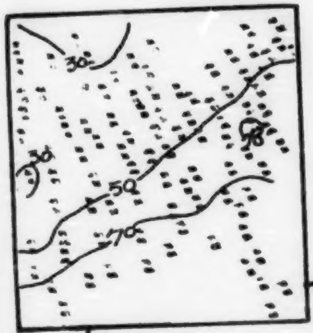
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

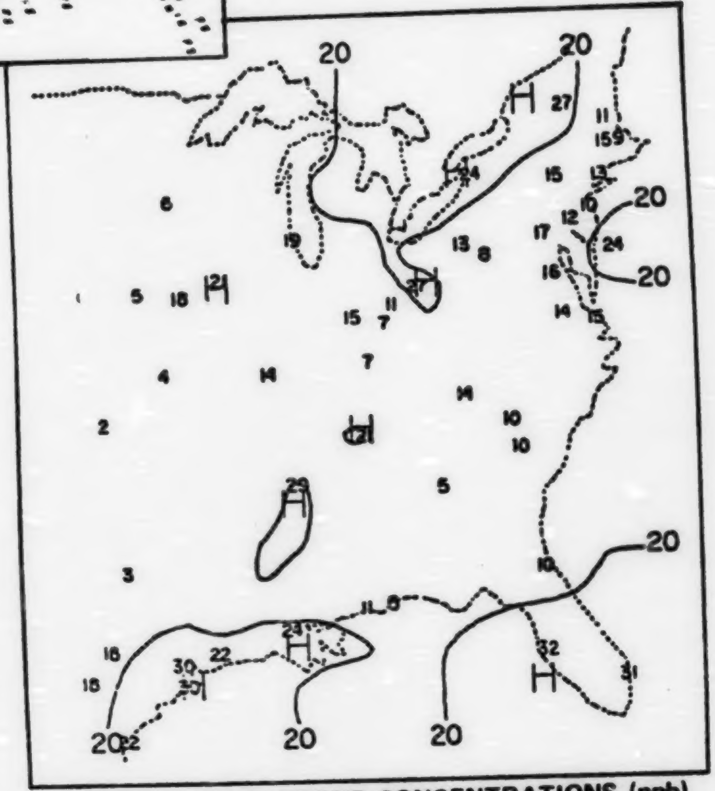
SUNDAY, DECEMBER 29, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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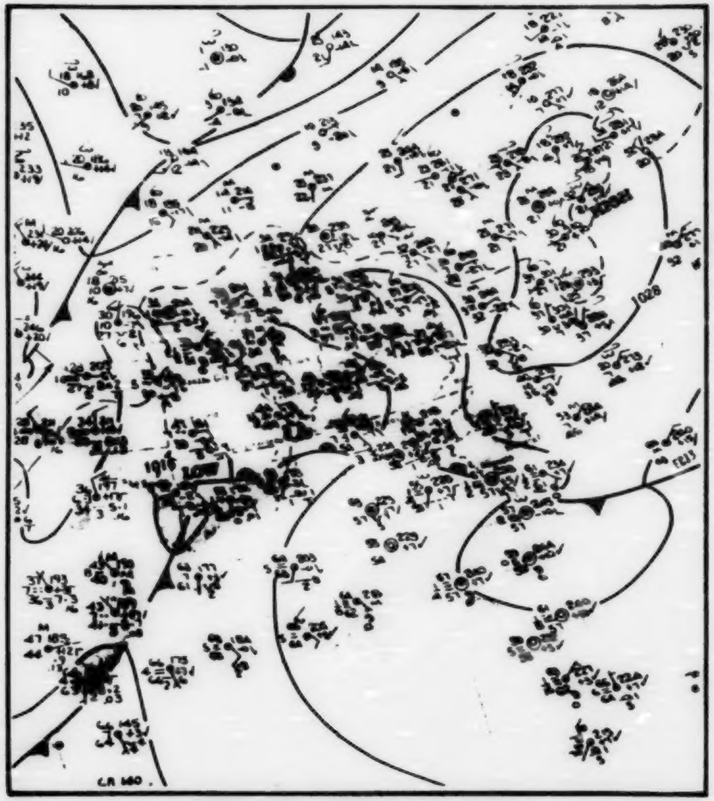
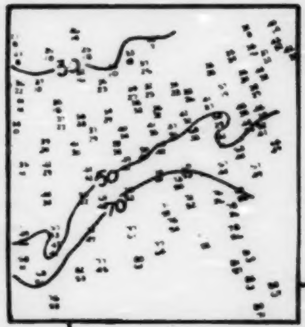
MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

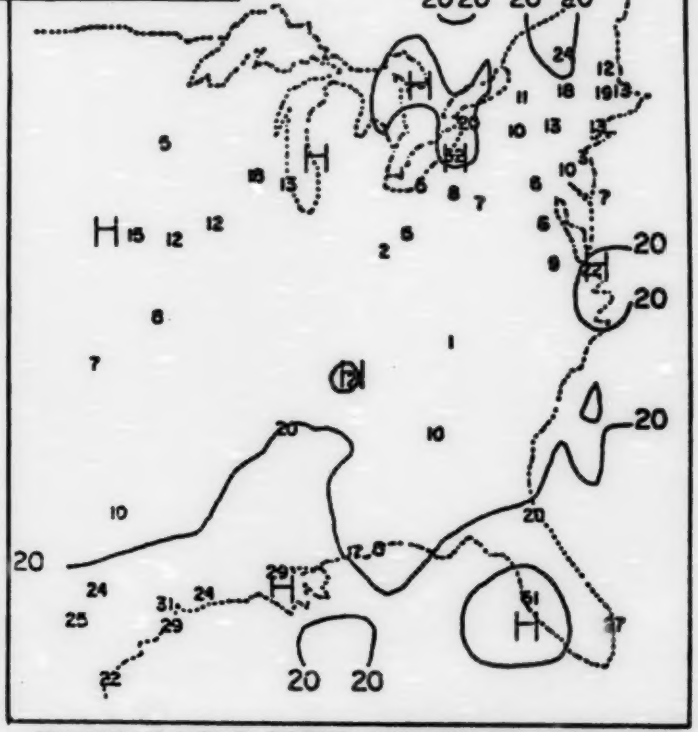
MONDAY, DECEMBER 30, 1974



1200 GMT WEATHER MAP



MAXIMUM-
MINIMUM
TEMPERATURE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MAXIMUM-HOUR OZONE CONCENTRATIONS (ppb)

TUESDAY, DECEMBER 31, 1974